MOTIVA
ENTERPRISES LLC

Certified Mail Return Receipt Requested: 7021 0950 0000 8717 8119

July 26, 2022

Director, Air Enforcement Division
Office of Civil Enforcement
U.S. Environmental Protection Agency
Mail Code 2242-A
1200 Pennsylvania Ave, N.W.
Ariel Rios Building South
Room 1119
Washington, DC 20460-0001

Re: Semi-Annual Compliance Status Report (Report)
Reporting Period January 1, 2022 through June 30, 2022
Motiva Chemicals LLC under the consent decree in the matter:
United States of America v. Flint Hills Resources Port Arthur, LLC, Civil Action Number 1:14-cv-00169,
United States District Court in the Eastern District of Texas, entered February 19, 2015 (Consent Decree)
Motiva Chemicals LLC
Port Arthur Chemicals
Port Arthur, Jefferson County, Texas

Motiva Chemicals LLC (Motiva Chemicals) is submitting its Report, for the reporting period of January 1, 2022, through June 30, 2022. The Report reflects the implementation status of those actions required in the Reporting Period. Action items are identified by their respective paragraph number in the Consent Decree. All certifications and other materials required to be submitted are included with the Report.

Please contact Matt Baker at matt.baker@motiva.com with any questions regarding the Report contents or format.

Sincerely,

Jeff Newman
President and Secretary
Motiva Chemicals LLC

Enclosures

cc:

Associate Director
Air, Toxics, and Inspections Coordination Branch (6 EN-A)
U.S. EPA, Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270
Certified Mail Return Receipt Requested: 7021 0950 0000 8717 8126

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, DC 20044-7611
Re: DOJ No. 90-5-2-1-10070
Certified Mail Return Receipt Requested: 7021 0950 0000 8717 8133

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Consent Decree Semi-Annual Compliance Status Report

January 1, 2022 through June 30, 2022

Contents

Certification Statement

Per Paragraph 107 of the Consent Decree:
"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: 
Jeff Newman
President and Secretary
Motiva Chemicals LLC

GENERAL REPORTING REQUIREMENTS

Semi-Annual Compliance Status Reports

This Consent Decree[1] (CD) Semi-Annual Compliance Status Report (Report) is submitted in accordance with the requirements of Paragraph 101 of the CD. The Report demonstrates that Motiva Chemicals LLC [2] (Motiva Chemicals), meets all applicable requirements of the CD except those noted in the Report.

Affirmative Relief Sections IV, V, and VI Implementation Progress Report

Per Subparagraph 101.a, please see below for a progress report on the implementation of the requirements in Sections IV, V, and VI of the CD (Affirmative Relief) at the Facility.

Date of Entry (DOE) for the CD was on February 19, 2015. The CD was lodged on March 20, 2014. Since Date of Lodging (DOL) and DOE, Motiva Chemicals has successfully implemented the requirements in the CD as specified in Sections IV, V and VI of the CD as described below.

Actions already completed:

- Per Paragraph 15, installation of a video camera for each flare was completed by June 30, 2014, and the subsequent records were maintained by December 31, 2014.
- Per Paragraph 15A, installation of Net Heating Value (NHV) analyzer on Aromatics Unit (AU) Flare was completed by December 31, 2014 and the subsequent records were maintained by June 30, 2015.
- Per Paragraph 15B, FHR installed and commissioned a New Steam Flow Monitor for the 600 lb. steam on December 13, 2018 and the 150 lb. steam on January 11, 2019 for the LOU Flare. Motiva Chemicals, per Paragraph 15B, installed and commissioned the replacement of the AU Flare 150 lb. Total Steam Flow Monitor on October 28, 2020.
- Per Paragraph 21, the Initial Waste Gas Minimization Plan (IWGMP) was first included in the January 1 – June 30, 2016 Report and will continue to be updated in future reports as required.
- Per Paragraph 32, FHR has operated each covered flare with the Automatic Control System (ACS) Steam to Vent Gas on a mass basis (S/VG_{mass}) and ACS supplemental gas flow rate by the dates noted in the CD. (Light Olefins Unit (LOU) Flare - Supplemental Gas flow rate on DOE and S/VG_{mass} on June 30, 2014. AU Flare - Supplemental Gas flow rate on December 31, 2014 and S/VG_{mass} on June 30, 2014.)
- Per Subparagraph 34.b, FHR has notified the United States Environmental Protection Agency (EPA) of the intent to use an NHV analyzer on the LOU Flare

[1] Consent Decree Civil Action Number 1:14-cv-00169, USAO File Number 2013V00893, and DOJ case number 90-5-2-1-10070

[2] As part of an equity sale which closed on October 31, 2019, the name of Flint Hills Resources Port Arthur LLC was changed to Motiva Chemicals LLC

and commenced operation of the NHV analyzer for compliance on or before December 31, 2015 but 30 days after the date of the letter submittal.

- Per Paragraph 64, FHR commenced repacking and replacement requirements including completion of the first set of Low-E valve replacements for the LOU during the Turnaround starting in October of 2012.
- Per Paragraph 74, FHR has implemented quarterly audits of the LDAR program.
- Per Paragraph 78, FHR completed the first LDAR Audit in February of 2014, the second LDAR Audit in April of 2016, the third LDAR audit in April of 2018, the fourth LDAR Audit in October of 2020, and will continue with future scheduled LDAR Audits as required.
- Per Subparagraph 87.b, FHR completed the BWON One Time Review and Verification Process in February of 2014 and that report was submitted on June 16, 2015.
- Per Paragraph 103, Emissions Data was included for the previous reporting year for the first time in the January 1 – June 30, 2016 report and will continue be included in future reports as required.
- Per Appendix 4.1, the Mitigation Projects for the Diesel Emissions Reduction Project and the Energy Efficiency Project were timely completed.
- Per Appendix 5.1, FHR created a publicly available fence line webpage with data posted for a period of two years after the DOE. The publicly available fence line webpage was located at www.airmonitoringaccess.com from DOE to July 31, 2018.
- Per Paragraph 64, FHR completed the first cycle of Low-E valve repacking or replacements for the Cyclohexane unit during a Turnaround that started October 17, 2019.
- Per Paragraph 64, Motiva Chemicals completed the one remaining cycle of Low-E valve repacking or replacements for the Gasoline Hydrogenation Unit during a Turnaround that started May 10, 2021.
- Per Paragraph 64, Motiva Chemicals completed the one remaining cycle of Low-E valve repacking or replacements for the LOU Unit during a Turnaround that started May 7, 2022.

Several actions were not required to be completed during this Reporting Period but are scheduled to be completed within the timeframes provided in the CD. Those action items are:

- Per Paragraph 43 and 44, addition of the Section IV requirements to the Motiva Chemicals New Source Review (NSR) or Title V permits is due prior to termination of the CD.
- Per Paragraph 64, completion of Low-E valve repacking or replacements is due to be completed in future Turnarounds.

Anticipated Compliance Schedule Conflicts

Per Subparagraph 101.b. Motiva Chemicals does not currently have any anticipated conflicts with meeting the requirements of Sections IV, V, and VI.

AFFIRMATIVE RELIEF SECTION IV: FLARES REPORTING

Monitoring Instrument/Equipment Downtime; Override of ACS; and Emissions Exceedances.

Per Subparagraph 101.c. please find the information for CD Paragraph 102 covering the Downtime, ACS and Emissions Exceedances for Motiva Chemicals' flares, related instruments, and equipment.

102.a. ***<u>Monitoring Instrument/Equipment Downtime.</u> The total number of hours of downtime of each monitoring instrument/equipment required pursuant to Paragraph 17 expressed as both an absolute number and a percentage of time the Covered Flare that the instrument/equipment monitors is In Operation;***

Motiva Chemicals operated each of the instruments and monitoring systems identified in Paragraph 17 on a continuous basis when the Covered Flares were In Operation and Capable of Receiving Sweep, Supplemental, and/or Waste Gas. See Table 2-1 for the amount of downtime for each instrument, expressed as both an absolute number of hours and percentage of time.

Table 2-1. Instrument/Monitoring System Downtime

LOU Flare	Instrument Measuring Wind Speed		Video Camera		Optional Utilization of a NHV Analyzer	
Calendar Quarter	Absolute Number of Hours	Percent Downtime When Flare was In Operation	Absolute Number of Hours	Percent Downtime When Flare was In Operation	Absolute Number of Hours	Percent Downtime When Flare was In Operation
Quarter 1	2.00	0.09%	0.08	0.00%	0.00	0.00%
Quarter 2	5.00	0.23%	0.00	0.00%	0.00	0.00%
	Vent Gas Flow Monitor & Molecular Weight Analyzer		Total Steam Flow Monitor			
Calendar Quarter	Absolute Number of Hours	Percent Downtime When Flare was In Operation	Absolute Number of Hours	Percent Downtime When Flare was In Operation		
Quarter 1	0.00	0.00%	0.00	0.00%		
Quarter 2	0.00	0.00%	25.0	1.14%		

Table 2-1. Instrument/Monitoring System Downtime (continued)

AU Flare	Instrument Measuring Wind Speed		Video Camera		NHV Analyzer	
Calendar Quarter	Absolute Number of Hours	Percent Downtime When Flare was In Operation	Absolute Number of Hours	Percent Downtime When Flare was In Operation	Absolute Number of Hours	Percent Downtime When Flare was In Operation
Quarter 1	2.00	0.09%	0.00	0.00%	0.00	0.00%
Quarter 2	5.00	0.23%	1.33	0.06%	0.00	0.00%
	Vent Gas Flow Monitor & Molecular Weight Analyzer		Total Steam Flow Monitor			
Calendar Quarter	Absolute Number of Hours	Percent Downtime When Flare was In Operation	Absolute Number of Hours	Percent Downtime When Flare was In Operation		
Quarter 1	0.00	0.00%	0.00	0.00%		
Quarter 2	0.00	0.00%	0.00	0.00%		

102.b. ***<u>Monitoring Instrument/Equipment Downtime.</u> If the total number of hours of downtime of any monitoring instrument/equipment required pursuant to Paragraph 17 exceeds 110 hours in any calendar quarter an identification of the periods of downtime by date, time, cause (including Malfunction or maintenance), and, if the cause is asserted to be a Malfunction, the corrective action taken;***

The total number of hours of downtime of any monitoring instrument/equipment required pursuant to Paragraph 17 did not exceed 110 hours in any Calendar Quarter.

102.c. ***<u>Override of Automatic Control System.</u> The total number of hours in which FHR manually overrode the ACS required in Paragraph 32, expressed both as an absolute number of hours and a percentage of time the Covered Flare was In Operation;***

Motiva Chemicals operated an ACS that automated the control of Supplemental Gas and S/VGmass to each Covered Flare. See Table 2-2 below for the total number of hours and the percentage of time Motiva Chemicals manually overrode the ACS when the Covered Flare was In Operation.

Table 2-2 Override of ACS for each Covered Flare

LOU Flare	Supplemental Gas Flow Rate		Control of S/VGmass	
Calendar Quarter	Absolute Number of Hours	Percent Downtime When Flare was In Operation	Absolute Number of Hours	Percent Downtime When Flare was In Operation
Quarter 1	28.17	1.40%	0.00	0.00%
Quarter 2	40.33	1.96%	216.42	9.91%

AU Flare	Supplemental Gas Flow Rate		Control of S/VGmass	
Calendar Quarter	Absolute Number of Hours	Percent Downtime When Flare was In Operation	Absolute Number of Hours	Percent Downtime When Flare was In Operation
Quarter 1	0.30	0.02%	0.00	0.00%
Quarter 2	0.00	0.00%	0.00	0.00%

102.d. ***Override of Automatic Control System. If the reason for the override was not one of the exceptions set forth in Paragraph 33 or if the total number of hours in which the ACS was overridden exceeds 110 hours in any calendar quarter, an identification of the periods of override (that exceed 110 hours) by the date, time, duration, reason for the override, and corrective actions taken;***

The Steam Automatic Control System exceeded 110 hours of override in the second calendar quarter. Identification of periods of override by date, time, and cause are provided in Table 2-3. All periods of ACS override for both Covered Flares were within an exemption set forth in Paragraph 33.

Table 2-3. Steam Automatic Control System Override

Start	End	Duration (Hrs)	Reason for Override	Corrective Action
05/01/22 07:05	05/10/22 13:00	221.92 Intermittently	P33: Stop smoke emissions	ACS Online after personnel made process adjustments.
05/16/22 15:10	05/16/22 17:55	2.75 Intermittently	P33: Stop smoke emissions	ACS Online after personnel made process adjustments.
05/20/22 12:30	05/20/22 13:15	0.75 Intermittently	P33: Stop smoke emissions	ACS Online after personnel made process adjustments.
06/10/22 13:25	06/11/22 17:55	28.5 Intermittently	P33: Stop smoke emissions	ACS Online after personnel made process adjustments.
06/17/22 08:45	06/18/22 08:08	23.33 Intermittently	P33: Stop smoke emissions	ACS Online after personnel made process adjustments.
06/23/22 17:10	06/23/22 20:05	2.92 Intermittently	P33: Stop smoke emissions	ACS Online after personnel made process adjustments.

102.e. ***Inapplicability of Standards in Paragraphs 34–37. The total number of hours, expressed as both an absolute number of hours and a percentage of time that the Covered Flare was In Operation, in which the requirements of Paragraphs 34–37 were not applicable because the only gas or gases being vented was/were Pilot Gas and/or Purge Gas; for purposes of Subparagraphs 102.f. and 102.g, all remaining hours shall be termed "Hours of Applicability";***

The absolute number of hours and the percentage of time that the Work Practice Standards set forth in Paragraphs 34 through 37 were inapplicable are shown in Table 2-4 for each Covered Flare. The Work Practice Standards set forth in Paragraphs 34 through 37 are inapplicable when there is no Waste Gas vented to the Covered Flare.

Table 2-4. Inapplicability of the Work Practice Standards in Paragraphs 34 through 37

Calendar Quarter	Subparagraph 34.a, 34.b iii, 35.a, Paragraph 36, 37			
	LOU Flare		AU Flare	
	Absolute Number of Hours	Percentage of Time	Absolute Number of Hours	Percentage of Time
Quarter 1	1529.92	70.9%	1767.17	81.9%
Quarter 2	929.08	42.5%	1273.33	58.3%

102.f. ***Exceedances of Standards in Subparagraphs 34.b, 35.a, and 37. During the Hours of Applicability, the total number of hours, expressed as both an absolute number of hours and a percentage of time the Covered Flare was In Operation, of exceedances of the emissions standards in Subparagraphs 34.b, 35.a, and 37; provided however, that if the exceedance of these standards was less than 110 hours in the calendar quarter and was due to one or more of the exceptions set forth in Paragraph 38, the report shall so note; and***

During the Hours of Applicability, or when the Covered Flare was receiving Potentially Recoverable Gas, Motiva Chemicals exceeded the Work Practice Standards in excess of 110 hours in a Calendar Quarter for the Covered Flares.

Paragraphs 34, 35, and 37 Work Practice Standard exceedances, with and without the Paragraph 38 downtime exemptions applied, are reported in Table 2-5 and Table 2-6 below.

Table 2-5. Absolute Number of Hours and Percentages of Time of Work Practice Standard Exceedances – Without Applying the Paragraph 38 Exemptions

LOU Flare	Subparagraph 34.b.ii Without Exemptions		Subparagraph 35.a Without Exemptions		Paragraph 37 Without Exemptions	
Calendar Quarter	Absolute Number of Hours	Percentage of Time when the Flare was In Operation	Absolute Number of Hours	Percentage of Time when the Flare was In Operation	Absolute Number of Hours	Percentage of Time when the Flare was In Operation
Quarter 1	27.8	1.29%	0.90	0.04%	92.2	4.27%
Quarter 2	232.8	14.70%	117.1	5.36%	365.1	16.72%

AU Flare	Subparagraph 34.b.iii Without Exemptions		Subparagraph 35.a Without Exemptions		Paragraph 37 Without Exemptions	
Calendar Quarter	Absolute Number of Hours	Percentage of Time when the Flare was In Operation	Absolute Number of Hours	Percentage of Time when the Flare was In Operation	Absolute Number of Hours	Percentage of Time when the Flare was In Operation
Quarter 1	26.1	1.21%	0.00	0.00%	15.3	0.71%
Quarter 2	3.7	0.17%	0.00	0.00%	0.00	0.00%

Table 2-6. Absolute Number of Hours and Percentages of Time of Work Practice Standard Exceedances – Applying the Paragraph 38 Exemptions

LOU Flare	Subparagraph 34.b.ii With Exemptions		Subparagraph 35.a With Exemptions		Paragraph 37 With Exemptions	
Calendar Quarter	Absolute Number of Hours	Percentage of Time when the Flare was In Operation	Absolute Number of Hours	Percentage of Time when the Flare was In Operation	Absolute Number of Hours	Percentage of Time when the Flare was In Operation
Quarter 1	26.3	1.22%	0.9	0.04%	68.1	3.15%
Quarter 2	223.8	14.13%	117.1	5.36%	363.6	16.65%

AU Flare	Subparagraph 34.b.iii With Exemptions		Subparagraph 35.a With Exemptions		Paragraph 37 With Exemptions	
Calendar Quarter	Absolute Number of Hours	Percentage of Time when the Flare was In Operation	Absolute Number of Hours	Percentage of Time when the Flare was In Operation	Absolute Number of Hours	Percentage of Time when the Flare was In Operation
Quarter 1	26.1	1.21%	0.00	0.00%	13.9	0.64%
Quarter 2	3.70	0.17%	0.00	0.00%	0.00	0.00%

102.g. ***<u>Exceedances of Standards in Subparagraphs 34.b, 35.a, and 37.</u> During the Hours of Applicability, if the exceedance of the emissions standards in Subparagraphs 34.b, 35.a, and 37 was not due to one of the exceptions in Paragraph 38, or if the exceedance was due to one or more of the exceptions in Paragraph 38 but the total number of hours caused by the exceptions in Paragraph 38 was greater than 110 an identification of each Block Period that exceeded the standard, by time and date; the cause of the exceedance (including Startup, Shutdown, maintenance, or Malfunction), and if the cause is asserted to be a Malfunction, an explanation and any corrective actions taken.***

Work Practice Standard exceedances due to Malfunction, or reasons not included in Paragraph 38 are reported in Table 2-7 below. Paragraph 102.b documents Instrument and/or Monitoring System downtime exceeding 110 hours.

During multiple Block Periods throughout this reporting period, the LOU Vent Gas Flow Monitor measured zero Vent Gas flow to the LOU Flare. A measurement of zero Vent Gas flow caused Subparagraph 34.b or 35.a. Work Practice Standard exceedances. Motiva Chemicals evaluated the technical specifications of the Vent Gas Flow Monitor and believes that a measurement of zero flow is within the plus or minus five percent error per Appendix 1.10 of the CD based on information from the vendor.

Table 2-7. Exceedances of Work Practice Standards in Subparagraphs 34.b, 35.a, and Paragraph 37

Covered Flare / Reason	Work Practice Standard Exceedance Paragraph(s)	Quarter	Block Period (Start)	Block Period (End)	Block Period Interval	Total Block Periods
LOU Flare / Outside of Paragraph 38	34.b.ii, 37	1	01/01/22 00:45	01/03/22 09:00	5 minutes	175
	Cause: During a regeneration, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards.					
LOU Flare / Outside of Paragraph 38	34.b.ii, 37	1	1/05/22 07:45	01/05/22 08:30	5 minutes	9
	Cause: During a regeneration, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards.					
LOU Flare / Outside of Paragraph 38	34.b ii, 37	1	1/19/22 14:30	1/20/22 17:30	5 minutes	103
	Cause: During a regeneration, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards.					
LOU Flare / Outside of Paragraph 38	34.b.ii, 37	1	1/21/22 22:50	1/23/22 07:45	5 minutes	38
	Cause: During a regeneration, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred intermittently. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards.					
LOU Flare / Outside of Paragraph 38	37	1	3/08/22 01:45	03/08/22 09:15	5 minutes	78
	Cause: During the shutdown of the LOU for a scheduled maintenance activity, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred. **Corrective action:** The LOU was successfully shutdown and the flare was taken out of service.					
LOU Flare / Outside of Paragraph 38	34.b.ii, 37	1/2	3/12/22 19:30	04/21/22 18:00	5 minutes	1482
	Cause: Non-event. LOU Flare was down in conjunction with operating unit for a scheduled maintenance activity. Exempt. **Corrective action:** No corrective action. Instrumentation reading during maintenance.					
LOU Flare / Outside of Paragraph 38	34.b.ii, 37	2	04/27/22 03:30	05/10/22 02:05	5 minutes	1595
	Cause: During the startup of the LOU after a scheduled maintenance activity, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards.					
LOU Flare / Outside of Paragraph 38	34.b.ii, 35.a, 37	2	5/14/22 15:40	05/15/22 09:20	5 minutes	9
	Cause: During a regeneration, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred intermittently. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards.					
	34.b.ii, 35.a, 37	1	5/17/22 13:35	05/19/22 20:00	5 minutes	93

Covered Flare / Reason	Work Practice Standard Exceedance Paragraph(s)	Quarter	Block Period (Start)	Block Period (End)	Block Period Interval	Total Block Periods
LOU Flare / Outside of Paragraph 38	**Cause:** During a regeneration, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred intermittently. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards.					
LOU Flare / Outside of Paragraph 38	34.b.ii, 35.a, 37	1	05/19/22 20:35	05/21/22 16:50	5 minutes	274
	Cause: During an upset, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards					
LOU Flare / Outside of Paragraph 38	34.b.ii, 37	1	05/24/22 07:10	5/28/22 19:40	5 minutes	581
	Cause: During a regeneration, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred intermittently. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards.					
LOU Flare / Outside of Paragraph 38	34.b.ii, 37	1	5/31/22 11:25	06/05/22 05:55	5 minutes	752
	Cause: During an upset, low BTU Waste Gas stream was sent to the LOU Flare, and Work Practice Standard exceedances occurred. **Corrective action:** Supplemental gas was added, and flow from the low BTU Waste Gas stream was reduced to return the LOU Flare operation within the Work Practice Standards					

Additional Matters Required by other paragraphs in the CD for Section IV

Per Subparagraph 101.i. of the CD, please find the additional information required by any other paragraph of the CD Section IV addressed in the below.

Additional information required to be reported per Section IV. Affirmative Relief: Emissions Reductions from Flares

21. ***<u>Initial Waste Gas Minimization Plan.</u> In the first semi-annual report required under Section VIII of this Decree that is due after one year has passed since the Date of Entry, FHR shall include an Initial Waste Gas Minimization Plan, which shall include the following:***

Please find the Initial Waste Gas Minimization Plan ("WGMP") below.

21.a. ***Updates, if and as necessary, to the information, diagrams, and drawings provided in the Flare Data and Monitoring Systems and Protocol Report required under Paragraph 14.***

The updated Flare Data and Monitoring Systems and Protocol Report is attached in Appendix B-1. Updates to the Flare Data and Monitoring Systems and Protocol Report are indicated by italic font within the report.

21.b. ***<u>Volumetric (in scfm) and mass (in pounds) of Waste Gas flow.</u> FHR shall identify the volumetric flow of Waste Gas, in scfm on a 30-day rolling average, and the mass flow rate, in pounds per hour on a 30-day rolling average, vented to each Covered Flare for the period of time between the Date of Entry and 31 days prior to the submission of the semi-annual report;***

The volumetric and mass flow rates of AU and LOU Waste Gas can be found in Appendix B-2.1 and B-2.2.

21.c. ***<u>Reductions previously realized.</u> FHR shall describe the equipment, processes and/or procedures installed or implemented to reduce flaring for the period of time between the Date of Entry and 31 days prior to the submission of the semi-annual report. The description shall specify the date of installation or implementation and the amount of reductions realized.***

Pursuant to Subparagraph 20.a., Motiva Chemicals installed a FGRU in 2011 as the primary Waste Gas Minimization project to reduce emissions. Motiva Chemicals' practice is to operate the FGRU continuously and optimize the FGRU's use for capturing Waste Gas. Since DOE through the end of the reporting period, the FGRU has recovered approximately 5,310,000,000 scf of Potentially Recoverable Gas.

21.d. ***<u>Reductions Based on Root Cause Analysis.</u> FHR shall review all of the Root Cause Analysis reports submitted under Paragraph 25 for the period of time between the Date of Entry and 31 days prior to the submission of the semi-annual report to determine if reductions in addition to the reductions achieved through any required corrective action under Paragraph 26 can be realized;***

A summary of the root cause analysis reports is listed under Paragraph 25 including any corrective actions. Motiva Chemicals does implement corrective actions as a reduction to reduce the likelihood of a recurrence for the same event, and therefore reduces the potential emissions from a recurrence; however, at this time Motiva Chemicals does not claim any reductions due to the corrective actions for the Root Cause Analysis report though they may have been completed as described under Paragraph 25.

21.e. ***<u>Planned reductions.</u> FHR shall describe the equipment, processes, or procedures that FHR plans to install or implement to eliminate or reduce flaring in the future. The description shall specify a schedule for expeditious installation and commencement of operation or implementation and a projection of the amount of reductions to be realized. Subsequent to the submission of the Initial WGMP, FHR may revise the installation and operation dates provided that FHR does so in writing to EPA within a reasonable time of determining that such a revision(s) is(are) necessary and provides a reasonable explanation for the revised date(s);***

Pursuant to Paragraph 20.a., Motiva Chemicals installed a FGRU in 2011 as the primary Waste Gas Minimization project to reduce emissions. Motiva Chemicals has not since planned a project to reduce emissions.

21.f. ***<u>Prevention Measures.</u> FHR shall describe and evaluate Prevention Measures, including a schedule for the expeditious implementation and commencement of operation of Prevention Measures, to address the following:***

21.f.i. ***Flaring that has occurred or may reasonably be expected to occur during planned maintenance activities, including Startup and Shutdown; and***

Motiva Chemicals has investigated planned maintenance activities, including Startup and Shutdown as described under Paragraph 25 of each semi-annual report. Motiva Chemicals performs the startup activities per appropriate startup procedures and the duration of the event is minimized to the extent possible. To minimize emissions, the process units start in a safe and controlled manner.

21.f.ii. ***Flaring caused by the recurrent failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. The evaluation shall consider the adequacy of existing maintenance schedules and protocols for such equipment. A failure is "recurrent" if it occurs more than twice during any five year period as a result of the same cause.***

Motiva Chemicals has not had a recurrent failure occur since Date of Entry.

25.b. ***<u>Submitting Summary of Internal Flaring Incident Reports.</u> In each semi-annual report due under Section VIII of this Decree (Reporting Requirements), FHR shall include a summary of the following items for each Reportable Flaring Incident that occurred during the six-month period that the semi-annual report covers: i. Date; ii. Duration; iii. Amount of VOCs and HAPs released; iv. Root Cause(s); v. Corrective Action(s) completed; vi. Corrective Action(s) still outstanding; and vii. An analysis of any trends identified by FHR in terms of the number of Incidents, the root causes, or the types of Corrective Action;***

Motiva Chemicals' practice is to be comprehensive in its review of incidents that occur as Reportable Flaring events. As such, at times, the investigation may discover opportunities for improvement not causally related to the subject event. Therefore, while the cause map will contain both causal and non-causal factors, Motiva Chemicals is addressing only

those causal factors and solutions related to the Reportable Flaring incident in question.

If an investigation has any outstanding corrective actions the completion of the outstanding actions will be reported in subsequent reports per Subparagraph 25.a.vi.

Reportable Flaring Incidents that occurred for the current semi-annual period are included in Table 2-8. A summary of Reportable Flaring Incidents from previous semi-annual periods with outstanding Corrective Action is included in Table 2-9.

Table 2-8. Summary of Reportable Flaring Incident Reports

Reportable Flaring Incident Description	Date	Duration (hours)	Total VOC Emissions released (lbs.)	Total HAP Emissions released (lbs.)
A Reportable Flaring Incident resulted from a process unit maintenance event that resulted in routing process streams to the flare for destruction.	3/6/2022	255.33	58,314.16	586.98
	Root Cause: This event occurred during a planned maintenance outage on the LOU Flare and FGRS. **All Corrective Action(s):** No corrective actions were completed as this was a planned maintenance event. **Corrective Actions still Outstanding**: No corrective actions were completed as this was a planned maintenance event **Incident Trends:** No trends in the terms of incidents, the root causes, or the types of corrective actions were identified during this investigation.			
Reportable Flaring Incident Description	**Date**	**Duration (hours)**	**Total VOC Emissions released (lbs.)**	**Total HAP Emissions released (lbs.)**
A Reportable Flaring Incident resulted from a process unit upset that resulted in routing process streams to the flare for destruction.	5/20/2022	19.08	405.63	5.29
	Root Cause: The root cause of this incident was a leak on a line at the Propylene Drying Unit. The line was isolated and depressured to the flare to stop the leak. **All Corrective Action(s):** The system was depressured and the leak stopped. Appropriate repairs were completed and normal operations commenced. **Corrective Actions still Outstanding**: All corrective actions are complete. **Incident Trends:** No trends in the terms of incidents, the root causes, or the types of corrective actions were identified during this investigation.			
Reportable Flaring Incident Description	**Date**	**Duration (hours)**	**Total VOC Emissions released (lbs.)**	**Total HAP Emissions released (lbs.)**
A Reportable Flaring Incident resulted from a process unit upset that resulted in routing process streams to the flare for destruction.	5/31/2022	190.45	1733.05	79.73
	Root Cause: The root cause of this incident was an improper water seal level in the diversion seal drum and excess flare purge gas. **All Corrective Action(s):** Adjustments were made to the seal drum water level, flare gas purge flow and an additional flare gas recovery unit compressor was brought on-line to handle any excess gas to the flare. **Corrective Actions still Outstanding**: All corrective actions are complete. **Incident Trends:** No trends in the terms of incidents, the root causes, or the types of corrective actions were identified during this investigation.			

Table 2-9. Summary of Reporting Flaring Incidents - Corrective Actions Outstanding from the Previous Report

Reportable Flaring Incident Description	Date	Duration (hours)	Total VOC Emissions released (lbs.)	Total HAP Emissions released (lbs.)
No outstanding corrective actions from the previous report				

29.b.i.2. ***Periods in which the Compressor is shut down (including the subsequent restart) due to by operating conditions (such as high temperatures or large quantities of entrained liquid in the Vent Gas) outside the design operating range of the FGRS, including the associated knock out drum(s), such that the outage is necessary for safety and/or to preserve the mechanical integrity of the FGRS. By no later than 60 days after any such period of outage, FHR shall investigate the root cause and all contributing causes of the outage and shall implement, as expeditiously as practicable, corrective action, if any, to prevent a recurrence of the cause(s). In the reports due under Section VIII of this Decree, FHR shall describe each outage that occurred under the conditions identified in this Subparagraph, including the date, duration, cause(s), corrective action, and the status of the implementation of corrective action.***

Motiva Chemicals' practice is to be comprehensive in its review of incidents that occur as periods in which an FGRS Compressor was shut down due to operating conditions outside the design operating range of the FGRS. As such, at times, the investigation may discover opportunities for improvement not causally related to the subject event. Therefore, while the cause map will contain both causal and non-causal factors, Motiva Chemicals is addressing only those causal factors and solutions related to the Periods in which an FGRS Compressor was shut down due to operating conditions outside the design operating range of the FGRS incident in question.

A summary of Periods in which an FGRS Compressor was shut down due to operating conditions outside the design operating range of the FGRS is included in Table 2-10.

Table 2-10. FGRS Compressor Shutdown Periods Due to Operating Conditions outside the Design Operating Range

FGRS Outage Description	Date	Duration (hours)
The FGRS shut down due to operating conditions outside of the design of the FGRS.	04/30/2022	270.73
	Root Cause: During the restart of the LOU after a planned maintenance event, not enough excess gas was being generated to run the FGRS. **All Corrective Actions:** As soon as the unit was stable, the FGRS was started and normal operations commenced. **Corrective Actions still Outstanding:** No corrective actions were identified related to the FGRU compressors.	
FGRS Outage Description	**Date**	**Duration (hours)**
The FGRS shut down due to operating conditions outside of the design of the FGRS.	05/26/2022	.43
	Root Cause: FGRU shut down on high level in the liquid separator. **All Corrective Actions:** The liquid level was brought back into normal range and normal operations commenced. **Corrective Actions still Outstanding:** No corrective actions were identified related to the FGRU compressors.	

Emissions Data

Per Paragraph 103 please find the information for total emissions of VOCs, NOx, CO_2, methane, and ethane from Motiva Chemicals' Covered Flares, for the prior calendar year, in tons per year in Table 2-41.

Table 2-41. Emissions Data for each Covered Flare

Emission Component	LOU Flare	LOU Flare -2	AU Flare
	2021 Tons/Year	2021 Tons/Year	2021 Tons/Year
NOx	20.56	0.00	2.77
CO2	45,974	0.00	5,289
VOC	35.0443	0.00	2.70
Methane	260.30	0.00	2.60
Ethane	16.94	0.00	0.10

Additional Matters

Subparagraph 101.j requires Motiva Chemicals to report "any additional matters that Motiva Chemicals believes should be brought to the attention to EPA." Motiva Chemicals has no additional matters this reporting period.

AFFIRMATIVE RELIEF SECTION V: LEAK DETECTION AND REPAIR REPORTING

Section V Semi-Annual Reporting Requirements

Per Subparagraph 101.e of the CD, please find information regarding the reporting requirements under Section V, as described in Paragraph 104.

Paragraph 104 Enhanced LDAR Program Compliance Status

104.a The information required in Subsection V.G, Paragraph 71;

71. <u>Valve and Connector Replacement/Improvement Report.</u> In each compliance status report due under Section VIII (Reporting) of this Decree, FHR shall include a separate section in the Report that: (i) describes the actions it took to comply with this Subsection V.G, including identifying the number and types of pieces of equipment that triggered a requirement in Subsection V.G, the ranges of Screening Values for identified equipment, the types of actions taken (i.e., replacement, repacking, or improvement), and the dates when the action was taken; (ii) identifies any required actions that were not taken and explains why; and (iii) identifies the schedule for any known, future replacements, repackings, improvements, or eliminations.

To address this requirement, Motiva Chemicals has prepared a separate section (Appendix C) that contains its demonstration of compliance with each Paragraph of Subsection V.G.

104.b A certification that LDAR training in Accordance with Paragraph 72 of this Consent Decree

72. Prior to the date of Lodging, FHR developed a training protocol and implemented a training program at the Facility which includes the following features:
a. For FHR's personnel newly-assigned to LDAR responsibilities, FHR requires LDAR training prior to each employee beginning such work;
b. For all FHR personnel assigned LDAR responsibilities, FHR requires completion of annual (I.e., once each calendar year) LDAR training;
c. For all other Facility operations and maintenance personnel (including contract personnel) who have routine duties relevant to LDAR, FHR provides and/or requires completion of an initial training program that includes instruction on aspects of LDAR that are relevant to the person's duties. For individuals covered by this Paragraph, "refresher" training in LDAR must be performed at least annually during the term of this Consent Decree.

Motiva Chemicals certifies to the best of its knowledge and belief, that all training as described in Paragraph 72 for a) newly assigned Motiva Chemicals personnel, b) all Motiva Chemicals personnel assigned LDAR

responsibilities, and c) all other Motiva Chemicals operations and maintenance personnel (including contract personnel) who have routine duties relevant to LDAR, was completed within the defined timelines.

104.c ***Any deviations identified in the QA/QC procedures performed under Subsection V.I, Paragraph 74, as well as any corrective actions taken under that Subsection;***

74. ***Commencing by no later than the first full calendar quarter after the Date of Entry, at unannounced times, an LDAR-trained employee or contractor of FHR, who does not serve on a routine basis as an LDAR monitoring technician, shall continue to undertake the following no less than once per calendar quarter: (a) For the prior calendar quarter: (i) Review whether any pieces of equipment that are required to be in the LDAR program are not included; (ii) Verify that equipment was monitored at the appropriate frequency; (iii) Verify that proper documentation and sign offs have been recorded for all equipment placed on the DOR list; (iv) Ensure that repairs have been performed in the required periods; (v) Review monitoring data and equipment counts (e.g., number of pieces of equipment monitored per day) for feasibility and unusual trends; (vi) Verify that proper calibration records and monitoring instrument maintenance information are maintained; and (vii) Verify that other LDAR program records are maintained as required. (b) Conduct random observations of each LDAR monitoring technician in the field to ensure monitoring is being conducted as required***

a. For this Reporting Period, defined as January 01, 2022 through June 30, 2022, reviews were completed for the 4th quarter of 2021 and the 1st quarter of 2022. The review for the 2nd quarter of 2022 will be performed at an unannounced time in the 3rd quarter of 2022 and results will be included in the January 2023 semi-annual CD compliance status report.

i. During field audits of randomly selected Process and Instrumentation Diagrams (P&IDs) related to LDAR, the third-party reviewer made a determination as to whether any pieces of equipment that are required to be in the LDAR program were not included. The reviews completed during this Reporting Period indicated that all equipment required to be in the LDAR program was included.

ii. The components identified in these field audits were checked against the LeakDAS database to ensure that the equipment was monitored at the appropriate frequencies. The reviews completed

during this Reporting Period indicated that all equipment was monitored at the appropriate frequency.

iii. Delay of Repair (DOR) sign-offs and documentation were verified in each quarterly review. The reviews completed during this Reporting Period indicated that all DOR sign-offs and documentation were recorded for the equipment placed on the DOR list.

iv. Repair frequencies were verified for all leaks found during the quarter. The reviews completed during this Reporting Period indicated that all repairs were performed within the required periods.

v. Monitoring data and equipment counts of components monitored were checked for monitoring feasibility/unusual trends. The reviews completed during this Reporting Period indicated that the monitoring completed was feasible with no unusual trends.

vi. Calibration records for both the daily calibration and the quarterly precision calibrations, as well as the monitoring instrument maintenance information records, were evaluated. The reviews completed during this Reporting Period indicated that the calibrations and instrument maintenance information was completed.

vii. A representative sample of database records was reviewed, and verification of paper copies being maintained was performed. The reviews completed during this Reporting Period indicated that other LDAR program records, including database and paper records, were maintained as required.

b. Random observations were conducted for LDAR monitoring technicians in the field to ensure monitoring was being performed as required. The reviews completed during this Reporting Period indicated that all technicians observed were performing monitoring as required.

104.d ***For the applicable semi-annual compliance status report as identified in Paragraph 80, the LDAR Audit Report; and***

80. ***<u>LDAR Audit Reports.</u> FHR shall have an LDAR audit report prepared by no later than one hundred and twenty (120) days after the LDAR Audit Commencement Date. In the first semi-annual compliance status report required pursuant to Section VIII that is due no less than ninety (90) days after the LDAR Audit Completion Date, FHR shall include the***

third-party auditor's description of the procedures and methodology used to conduct the audit, including those used in undertaking the comparative monitoring required by Subparagraphs 79.a–79.c, and how the third party otherwise complied with the audit requirements of this Decree.

Motiva Chemicals conducted its fourth LDAR Audit from July 8, 2020 – October 28, 2020. As agreed with the United States Environmental Protection Agency (EPA) and Department of Justice (DOJ) and as provided in Paragraph 82.b. of the CD, the Corrective Action Plan is required to be submitted, not the LDAR Audit. The required information from the third-party LDAR Audit, as well as the auditor's description of the procedures and methodology used to conduct the audit, was included in the Semi-Annual Compliance Status Report dated January 27, 2021.

104.e ***For the applicable Semi-annual compliance status report as identified in Subparagraph 82.b, the final CAP (if any), together with any other items required by subparagraph b.***

82.b. ***<u>Submission of the Final CAP to EPA.</u> In the first semi-annual compliance status report required pursuant to Section VIII that is due no less than 90 days after the LDAR Audit Completion Date, FHR shall submit the final CAP to EPA, together with a certification of the completion of each item of corrective action. If any action is not completed by the time of the submission of the Final CAP, FHR shall explain the reasons, together with a proposed schedule for completion as expeditiously as practicable. FHR shall submit a supplemental certification of completion by no later than the next compliance status report that is required pursuant to Section VIII.***

Motiva Chemicals did not perform a third-party audit during this reporting period. Following the completion of the LDAR Audit which commenced on July 8, 2020, a final Corrective Action Plan (CAP) was included in the Semi-Annual Compliance Status Report dated January 27, 2021.

84. ***In the first compliance status report required pursuant to Section VIII that is due no less than 90 days after the LDAR Audit Completion Date, FHR shall certify to EPA that, to the signer's best knowledge and belief formed after reasonable inquiry: (i) except as otherwise noted, the Facility is in compliance with all applicable LDAR regulations and this ELP; (ii) FHR has completed all corrective actions, if applicable, or is in the process of completing all corrective actions pursuant to a CAP; and (iii) all equipment at the Facility that is regulated under LDAR has been identified and included in the Facility's LDAR program. To the extent that FHR cannot make the certification in all respects, it shall specifically identify any deviations from Items (i)–(iii).***

Compliance with this Subparagraph was met and reported on during the first Semi-Annual Compliance Status Report submitted on January 29, 2016.

Additional Matters Required by Other Paragraphs in the CD for Section V

Per Subparagraph 101.i, please find the additional information required by any other Paragraph of the CD Section V, Affirmative Relief: Leak Detection and Repair addressed in the above paragraphs and Appendix C.

Additional Matters

Subparagraph 101.j requires Motiva Chemicals to report "any additional matters that FHR believes should be brought to the attention of EPA." Motiva Chemicals addressed the additional matters related to the requirements in Section V, Affirmative Relief: Leak Detection and Repair in the above paragraphs.

AFFIRMATIVE RELIEF SECTION VI: BWON REPORTING

VI. AFFIRMATIVE RELIEF: BENZENE WASTE OPERATIONS NESHAP

89.a. ***By no later than Date of Entry of this Decree, FHR shall continue to operate primary and secondary carbon canisters at all locations that use carbon canisters as a control device under the Benzene Waste Operations NESHAP. If FHR installs any new dual canister systems after the Date of Entry, FHR shall notify EPA of this installation in the next semi‑annual compliance status report following completion of the installation.***

In accordance with the requirements of this Subparagraph, Motiva Chemicals is providing a list of all locations where new dual carbon canister systems (CAS) were utilized by Motiva Chemicals during the current reporting period. For all applications where a carbon canister system was utilized, including temporary locations, Motiva Chemicals utilized a dual carbon canister system subject to the requirements of Subparagraph 89.b. through Subparagraph 89.d.

Table 4-1 New CAS installed during this semi-annual period

Number of Carbon Canister Systems	Location
1	LOU Middle Road
1	Area 37

Note – The carbon canister systems identified in the table above were temporarily located on site to assist with maintenance and/or operational activities.

95. ***At the end of each calendar quarter following commencement of quarterly sampling, FHR shall calculate a quarterly uncontrolled benzene quantity and shall estimate a projected calendar year uncontrolled benzene quantity based on the quarterly sampling results and the approved flow calculations. FHR shall submit the quarterly uncontrolled benzene quantity and projected calendar year uncontrolled benzene quantity in the Compliance Status Reports required pursuant to Section VIII for the two quarters covered by the report.***

In accordance with the Sampling Plan requirements of Subparagraph 94.c, End of Line (EOL) samples were collected for the two quarters covered by this Compliance Status Report. Motiva Chemicals calculated the quarterly uncontrolled benzene quantity and estimated the projected uncontrolled benzene quantity for the calendar year.

Table 4-2 contains the quarterly uncontrolled benzene[3] quantity for each identified sampling location and the total calculated quarterly EOL concentration

[3] The values represented in the table, for both EOL locations, as identified on Motiva Chemicals' BWON Sampling Plan, represent calculated benzene quantity for the EOL locations which are considered uncontrolled waste streams that qualify for the 10 ppmw exception under §61.342(c)(2). Importantly, these values are not representative of the

per quarter. The table also contains the estimated projected calendar year uncontrolled benzene quantity, based on the quarterly sampling results. Based on the samples collected per subparagraph 94.c, at no time did Motiva Chemicals project the uncontrolled benzene for the calendar year to be greater than 2.0 Mg/yr.

Table 4-2. Quarterly and Annual Estimations of Uncontrolled Benzene Quantity

Period	Sump 65	LOU Cooling Tower	Total EOL	Projected Total EOL
	Calculated Benzene quantity per quarter (Mg)	Calculated Benzene quantity per quarter (Mg)	Calculated Benzene quantity per quarter (Mg)	Projected Annual Benzene (Mg)[4]
1st Quarter 2022	0.0529	0.0004	0.0533	0.2131
2nd Quarter 2022	0.0421	0.0002	0.0424	0.1913

96.b. ***In each compliance status report required pursuant to Section VIII of this Decree, FHR shall include each BWON Corrective Measures Plan that it developed under Subparagraph 96.a, and shall describe with specificity the status of the implementation of the Plan.***

Not applicable. The calculated uncontrolled benzene quantity pursuant to Paragraph 95 did not exceed 0.5 Mg for either of the two quarters covered in this Compliance Status Report. In addition, the estimated projected uncontrolled benzene quantity for the calendar year did not exceed 2.0 Mg/yr during this Compliance Status Report. Therefore, Motiva Chemicals was not required to develop a BWON Corrective Measures Plan.

Section VI Semi-Annual reporting requirements

Per Subparagraph 101.f, please find information regarding the reporting requirements under Section VI, as described in Paragraph 105.

Paragraph 105 Benzene Waste Operation NESHAP[5]

uncontrolled benzene quantity reported in Motiva Chemicals' Total Annual Benzene (TAB) report. The streams that are routed through the EOL sampling locations are less than 10 ppmw benzene concentration thus, per 40 CFR 61.342(c)(2), are exempt from control requirements. Therefore, these streams are included in Motiva Chemicals' TAB but not in the uncontrolled benzene quantity, in accordance with this exemption.

[4] This value is estimated based on the year-to-date quarterly average of the calculated quarterly benzene quantity multiplied by four. The fourth quarter's projects is the sum of the year's Total EOL.

[5] This section is only submitted in the January 31 semi-annual report of each year.

105 ***<u>Benzene Waste Operation NESHAP.</u> In the semi-annual compliance status report that is required on January 31 of each year, FHR shall submit the following information:***

The information required per Paragraph 105 will be included in the January 31 report of next year.

ADDITIONAL MATTERS REPORTING for BWON.

Subparagraph 101.j requires Motiva Chemicals to report "any additional matters that Motiva Chemicals believes should be brought to the attention to EPA." Related to the requirements in Section VI, Affirmative Relief: Benzene Waste Operations NESHAP, Motiva Chemicals has not identified any additional matters per this section following its reasonable inquiry process.

APPENDIX 4.1 MITIGATION PROJECTS REPORTING

Status of the Mitigation Projects

FHR completed the Mitigation Projects per Paragraph 101.g. and as described in Appendix 4.1 and Section IX of the CD. The final Mitigation Projects status update was submitted in the semiannual report dated January 30, 2018.

APPENDIX 5.1 AIR MONITORING SEMI-ANNUAL REPORT

Appendix 5.1 Air Monitoring Semi-Annual Reports

Air Monitoring Semi-Annual Reports are not applicable for this report. Per Appendix 5.1, FHR submitted Air Monitoring Semi-Annual Reports with the Semi-Annual Reports due under Paragraph 101 of the Decree for a period of two years from the DOE.

Consent Decree Semi-Annual Compliance Status Report

January 1, 2022 through June 30, 2022

Table of Appendices

APPENDIX A

General Reporting Requirements

Motiva Chemicals' response for this section has been provided in the main body of the Report. No additional information is presented in Appendix A.

APPENDIX B

Affirmative Relief Section IV: Flares Reporting

APPENDIX B-1: Flare Data and Monitoring Systems and Protocol Report

MOTIVA CHEMICALS

PORT ARTHUR CHEMICALS FACILITY

APPENDIX B-1: Consent Decree Appendix 1.8: Flare Data and Monitoring Systems and Protocol Report

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SECTION 1: MOTIVA CHEMICALS PORT ARTHUR CHEMICALS FACILITY

The Motiva Chemicals Port Arthur Chemicals facility plot plan can be found in Attachment A in Figure 3.

SECTION 2: DESCRIPTION OF FLARES

Table 1 contains the general description of the Light Olefins Unit/Propylene Drying Unit ("LOU") Flare, Aromatics Unit ("AU") Flare, and LOU Flare-2.

Table 12 General Description of Flares

Covered Flare	Type of Flare (Elevated or Ground)	Assist System (Air, Steam, or Non)	Simple or Integrated (Sequential or Staged)
LOU Flare	Elevated	Steam	Simple
AU Flare	Elevated	Steam	Simple
LOU Flare-2	Elevated	Steam	Simple

Table 2 contains installation dates for LOU Flare, AU Flare, LOU Flare-2, and Flare Gas Recovery System (FGRS).

Table 13 Flare and Flare Gas Recovery System (FGRS) Date First Installed

Unit	Date First Installed
LOU Flare	1978
AU Flare	1962
LOU Flare-2	2010
FGRS	2011

History of Physical Changes to the Flare

Port Arthur Chemicals Facility ("Facility") was acquired by Flint Hills Resources, LP ("FHR") in November of 2007. On November 1, 2010, as part of a corporate restructuring, Flint Hills Resources, LP transferred ownership of certain assets to Flint Hills Resources Port Arthur, LLC, including the Port Arthur Chemicals facility located at 4241 Savannah Avenue, Port Arthur, TX 77640-3668. As part of an equity sale which closed on October 31, 2019, Flint Hills Resources Port Arthur, LLC became Motiva Chemicals LLC. This transfer did not result in any change in operations.

The Facility has had multiple owners in the past; therefore, Table 3 and Table 4 capture the physical changes Motiva Chemicals identified for the LOU and AU Flares, respectively. Motiva Chemicals believes this document captures the major changes. Motiva Chemicals has not made any changes to the LOU Flare-2 since installation.

Table 14 History of Physical Changes Made to the LOU Flare[6]

Year	Modification Summary
1976/1977	Original Flare tip installation
1980/1982	Replaced Flare tip
1987	Replaced Flare tip
1995	Replaced Flare tip
1997	Replacement of Flare tip; additional seal and structure changes
2006	Replacement of Flare tip with 6 pilots
2006	Flare tip assembly modification
2009	Portable pilots installed on LOU Flare
2010	Replaced LOU Flare tips, and upgraded density seal, Flare utility piping, structural steel pipe guides and Flare piping support
2016	Two portable pilots installed on LOU Flare
2019	Installed three additional portable pilots on the LOU Flare
2020	LOU Flare tip repairs and pilot replacement

Table 15 History of physical changes made to the AU Flare[7]

Year	Modification Summary
1968	Conversion to steam-assisted Flare
1994	Route AU Flare gas to LOU Flare gas Skid
1994	Route dimethyl sulfide vent to Flare
1996	Install sample point on vent line of AU Flare knockout drum
1996	Install sample points on vent line of AU Flare feed gas line
1997	Modernization of AU Flare – replace Flare tip and automate combustion controls
1997	Route AU off-gas line to AU Flare
1999	Reroute dimethyl sulfide drum Flare line
1999	AU/Cyclohexane Flare pilot monitoring system improvement
2000	Install secondary remote Flare pilot monitoring system
2002	Install temporary AU Flare knockout drum pump
2002/2003	Upgrade 19G-1/A (Flare knockout condensate pump)
2003	Installed propane gas line to AU Flare
2010	Installation of two portable pilots on AU Flare

Temporary Flare Duration and Time Periods of Use

The Facility does not have any temporary Flares in use.

In 2010 FHR installed a back-up Flare, LOU Flare-2, to the LOU Flare. This Flare is a permanent back-up Flare.

SECTION 3: FLARE COMPONENTS

This section contains a description of the Flare components associated with each covered Flare. Attachment A contains a simplified process diagram showing where each of the Flare components described is located in the flare system. Attachment B contains confidential business information regarding the Flare components and was submitted separately.

LOU Flare

Knockout or surge drum(s) or pot(s)

The knockout drum is a device used to separate vapors and collect liquids accumulated in the Flare system.

Drum	Dimensions	Design Parameters
Hot/wet knockout drum	16’ x 48’	Maximum allowable working pressure: 50 psig Temperature: 65 deg F
Cold/dry knockout drum	13’ x 49’	Maximum allowable working pressure: 50 psig Temperature operating range: -50 to 65 deg F

Waterseal(s)

A water seal provides back pressure for routing Flare gas flow to the FGRS at the LOU. In the event of high Flare pressure, the vent gas will be routed to the LOU Flare.

Drum	Dimensions	Design Parameters
Seal drum	12’ x 22’6”	Pressure: 50 psig Temperature: 350 deg F
Seal drum	6’ x 7’ 7 5/8”	Maximum allowable working pressure: 50 psig Temperature: 350 deg F

Flare header(s)

The Flare header is a conveyance system carrying waste gas to the FGRS and the Flare from facility equipment.

Sweep gas system

For a Flare with a Water Seal: Plant fuel gas is introduced into a Flare header in order to: (a) prevent oxygen buildup, corrosion, and/or freezing in the Flare header; and (b) maintain a safe flow of gas through the Flare header. The sweep gas system consists of a fuel gas source, flow valves and orifices.

Purge gas system

Purge Gas is the gas introduced between a Flare header’s water seal and the Flare tip to prevent oxygen infiltration (backflow) into the Flare tip. The purge gas also serves a safety purpose to prevent flashback or explosion. The purge gas system consists of the natural gas source, flow valves, and orifices.

Supplemental gas system
Supplemental Gas is natural gas introduced to the Flare to meet the net heating value requirements for control devices. The supplemental gas system consists of the natural gas source, flow valves, and orifices.

Pilot gas system
Natural gas is introduced through the pilot tip of a Flare to maintain a flame. The ignition system is automated by using thermocouples to maintain high energy discharge to portable pilots. The pilot gas system consists of the natural gas source, an orifice and the ignition system.

Assisted steam system
An assisted steam system utilizes steam piped to a Flare tip to assist in complete combustion. The LOU Flare has upper, center, and lower steam. The center steam is injected in the vent gas stack prior to reaching the Flare tip, and the lower steam is injected, with aspirated air, through internal tubes interspersed across the Flare tip. The upper steam is injected at the top of the Flare tip from a ring. The assist steam reaches the flare via piping and flows through valves for control.

Ignition system
The automated ignition system includes six Flare pilots which are ignited from a control panel. The ignition system consists of orifices for natural gas flow and the igniter panels for lighting the pilots.

AU Flare

Knockout or surge drum(s) or pot(s)

The knockout drum collects liquids accumulated in the Flare system.

Drum	Dimensions	Design Parameters
Knockout drum	8’ x 20’	Maximum allowable working pressure: 61 psig Temperature: 450 deg F

Waterseal(s)

A water seal provides back pressure for routing Flare gas flow to FGRS at the LOU. In the event of high Flare pressure, the vent gas will be routed to the AU Flare.

Drum	Dimensions	Design Parameters
Seal drum	5’11” x 12’ 4”	Maximum allowable working pressure: 61 psig Temperature: 450 deg F

Flare header(s)

The Flare header is a conveyance system carrying waste gas to the FGRS and the Flare from facility equipment.

Sweep gas system

For a Flare with a water seal: Plant fuel gas is introduced into a Flare header in order to: (a) prevent oxygen buildup, corrosion, and/or freezing in the Flare header; and (b) maintain a safe flow of gas through the Flare header. The AU Flare does not currently have a sweep gas system.

Purge gas system

Purge gas is the gas introduced between a Flare header’s water seal and the Flare tip to prevent oxygen infiltration (backflow) into the Flare tip. The purge gas system consists of the natural gas source, flow valves, and orifices.

Supplemental gas system

Supplemental gas is natural gas introduced to a Flare to comply with the net heating value requirements of control devices. The supplemental gas system consists of the natural gas source, and valves.

Pilot gas system
Natural gas is introduced through the pilot tip of a Flare to maintain a flame. The system is automated by using thermocouples to maintain high energy discharge to portable pilots. The pilot gas system consists of the natural gas source, an orifice and the ignition system.

Assisted steam system
An assisted steam system is a Flare system that utilizes steam piped to a Flare tip to assist in combustion. The AU has two points of steam addition: center steam and lower steam. The assist steam reaches the flare via piping and flows through valves for control.

Ignition system
The ignition system includes three Flare pilots and two temporary pilots which are ignited from a control panel. The system is automated by using thermocouples to maintain high energy discharge to portable pilots. The pilots can also be lit manually at the control panel. The ignition system consists of orifices for natural gas flow and the igniter panels for lighting the pilots.

LOU Flare-2

The LOU Flare-2 (approximately 220’ in height) allows the LOU Flare line to be blinded off to facilitate repairs to the LOU Flare stack and tip.

The LOU Flare-2 is only used as a backup when the LOU Flare is taken out of service for maintenance, repairs, inspections, or servicing. As such, LOU Flare-2 is not used on a frequent basis, but is permanently located on-site.

SECTION 4: Simplified Process Diagram

All of the items described as part of the flare components in Section 3 can be seen in the simplified process flow diagram in Attachment A, Figure 4.

SECTION 5: FLARE GAS RECOVERY SYSTEM (FGRS)

The FGRS consists of the following equipment:

Compressors
The FGRS has three two-stage liquid ring type compressors. Flare gas from the AU and LOU is directed towards the suction of the compressor where the gas is compressed to higher pressure and is then discharged from the compressor and into the Facility's fuel gas system. Each compressor has a nominal design capacity of 1000 acfm (or approximately 60 kscfh).

Inlet knockout drum
Inlet knock out drum in the FGRS is used to separate liquids from the waste gas.

Separator vessel
The separator vessel operates similar to the inlet knockout drum. It is used to separate liquids from vapors and then sends the gas to the Facility's fuel gas system.

Waterseal(s)-LOU
A water seal as part of the LOU Flare system provides back pressure for routing Flare gas flow to the FGRS at the LOU. In the event of high Flare pressure, the vent gas will be routed to the LOU Flare.

Waterseal(s)-AU
A water seal as part of the AU Flare system provides back pressure for routing Flare gas flow to the FGRS at the AU. In the event of high Flare pressure, the vent gas will be routed to the AU Flare.

All of the items described as part of the FGRS above and the flow diagram encompassing the FGRS and other Flare sections can be found in Attachment A in the process flow (Figure 4) and FGRS flow (Figure 5) diagrams.

Maximum actual past flow on an scfm basis and the annual average flow in scfm for the five years preceding the Date of Lodging or since the FGRS has been in operation

The Facility installed the FGRS in 2011. Therefore, Motiva Chemicals has maximum past and annual average flow for the operational timeframe since the date of initial operation.

The maximum actual past flow for the FGRS is approximately *3,076* scfm, and the average flow for the FGRS is approximately *1,372 scfm* since the date of initial operation.

SECTION 6: FLARE DESIGN PARAMETERS

Table 5 incorporates the gas flow rates for the LOU and AU Flares as currently designed. The LOU Flare-2 is not currently in operation and typically only used when the LOU Flare is down for maintenance. The LOU Flare-2 when in operation will use many of the same pieces of equipment as the LOU Flare maintaining the same values as the table below for the LOU Flare.

Table 16 Flare Design Parameters for the LOU and AU Flares.

Design Parameter	LOU Flare	AU Flare
Maximum Vent Gas Flow Rate and/or Mass Rate	1,000,000 lb/hr	165,000 lb/hr
Maximum Sweep Gas Flow Rate and/or Mass Rate	The Sweep Gas flow rate is maintained using multiple small fixed orifices at the end of the Flare header. The approximate flow rate is 110 scfm.	
Maximum Purge Gas Flow and/or Mass Rate	300 lb/hr	60 lb/hr
Maximum Pilot Gas Flow and/or Mass Rate	565 scfh	325 scfh
Maximum Supplemental Gas Flow and/or Mass Rate	9,356 lb/hr	1,070 lb/hr
Minimum Total Steam Rate, how it was derived	4,500 lb/hr, with the center steam set to prevent burn back into the tip and lower steam set to ensure tip and steam line stay hot	500 lb/hr, to maintain the temperature in the line to prevent condensation of steam to water

SECTION 7: GASES VENTING TO FLARE

Table 6 and 7 incorporate the detail for gases venting to the LOU and AU Flare. The LOU Flare-2 is not currently in operation and typically only used when the LOU Flare is down for maintenance. The process flow diagram in Attachment A shows each type of gas venting to the Flare system.

Table 17 LOU Flare Unit Gases

	Sweep Gas	Purge Gas	Pilot Gas	Supplemental Gas
Type of Gas Used	Plant Fuel Gas	Natural Gas	Natural Gas	Natural Gas
Actual Set Operating Flow Rate (in scfm)	110 scfm	100 scfm	1,800 scfm	
Average Lower Heating Value Expected for Each Type of Gas Used	710 Btu/Scf	900 Btu/Scf	900 Btu/Scf	900 Btu/Scf

Table 18 AU Flare Unit Gases

	Sweep Gas	Purge Gas	Pilot Gas	Supplemental Gas
Type of Gas Used		Natural Gas	Natural Gas	Natural Gas
Actual Set Operating Flow Rate (in scfm)		17 scfm	33 scfm	
Average Lower Heating Value Expected for Each Type of Gas Used		900 Btu/Scf	900 Btu/Scf	900 Btu/Scf

Figure 1 illustrates a general introduction of lower, center, and upper steam into the Light Olefins Unit Flare.

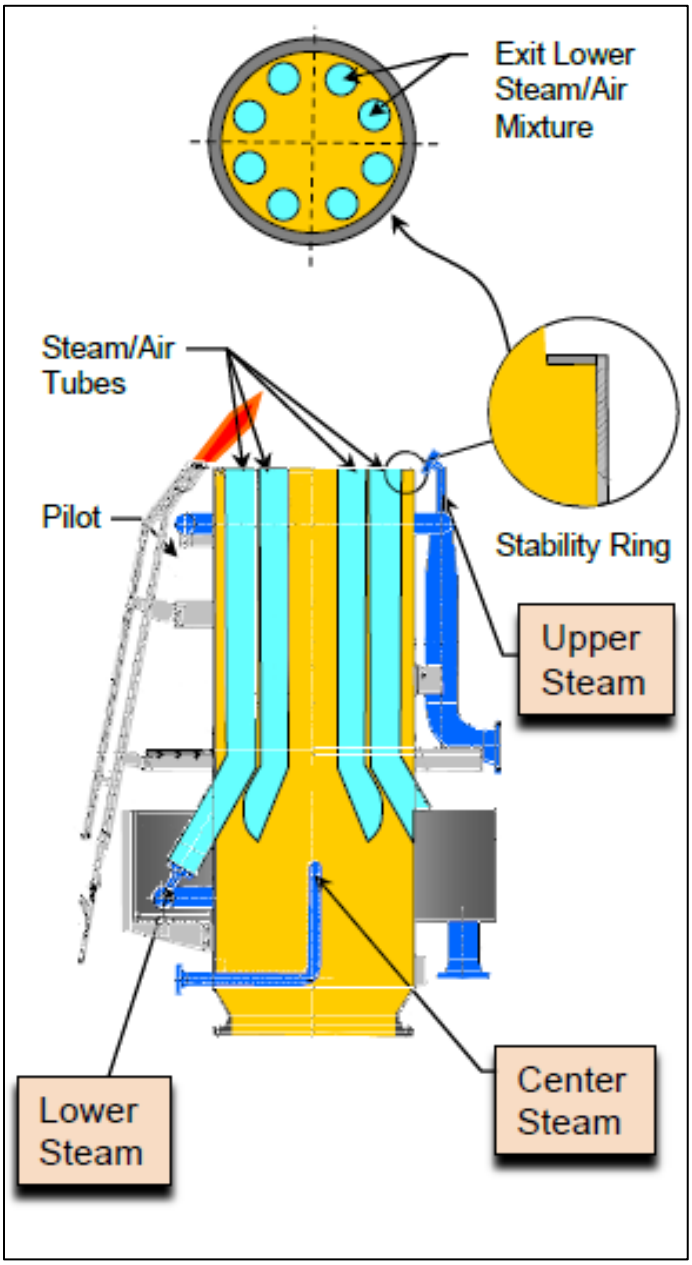

Figure 1 Light Olefins Unit (LOU) Flare Steam

Figure 2 illustrates a general introduction of center and upper steam into the Aromatics Unit Flare.

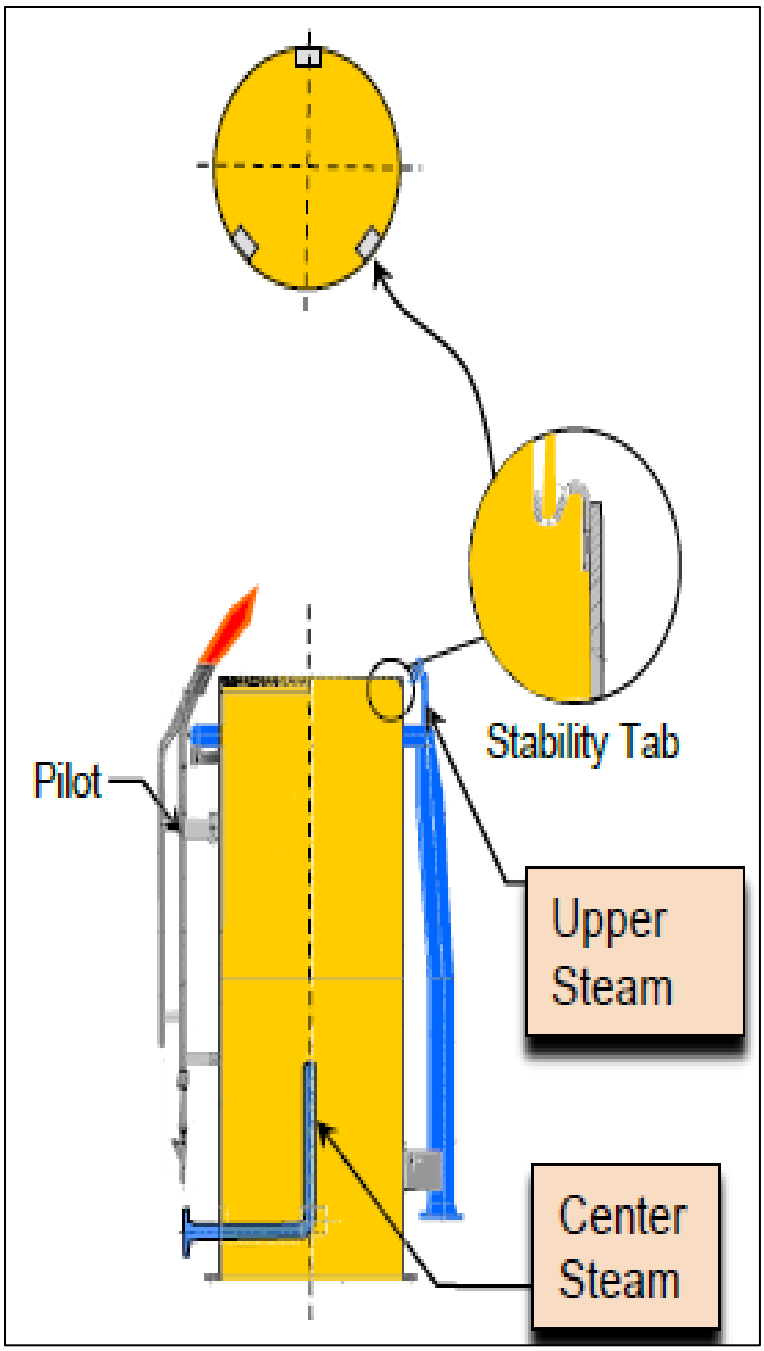

Figure 2 Aromatics Unit Flare Steam

SECTION 8: EXISTING MONITORING SYSTEM

The existing MONITORING systems for each Flare are described in Tables 8 through 10. Locations of all existing monitoring systems are shown in Figure **4**.

Table 19 Existing Monitoring Systems- Light Olefins Unit Flare

Equipment	Manufacturer – Model #	Installation Date[8]
Waste Gas and/or Vent Gas flow monitoring: The Waste/Vent Gas flow is monitored by a flow indicator at the entrance to the flare system from the flare header. • FI-9802B	GE Panametrics - DigitalFlow GF868	Approximately 2003
Waste Gas and/or Vent Gas heat content analyzer: The heat content analyzer consists of a Net Heating Value (NHV) analyzer • AI-9556	Hombre WIM Compas F	August 21, 2015
Sweep Gas flow monitoring: The Sweep Gas flow rate is maintained using multiple small fixed orifices at the beginning of the Flare header.		
Purge and Supplemental Gas flow monitoring: The Supplemental Gas flow is monitored via a flow orifice meter. The Purge Gas flow is monitored via an orifice with a set size. • FI-9993	Rosemount – 3051CD3A27A1AKBM5Q4Q8	February 22, 2022
Waste Gas or Vent Gas molecular weight analyzer: The flow indicator monitoring the Waste/Vent Gas flow to the flare also determines the molecular weight of the material. • AI-9802	GE Panametrics - DigitalFlow GF868	Approximately 2003
Steam flow monitoring: The steam flow is monitored by two separate orifice meters. One meter is for the 150 psi steam, while the other is for the 600 psi steam. • FR-902 • FR-903	GE GS 868 2-11-200A5-11-0-0-0-0 GE GS 868-2-11-200A51-11	January 11, 2019 December 13, 2018
Gas Chromatograph: The gas chromatograph (GC) is the device on the flare monitoring the flare flow constituents. • AZ56	Siemens - Maxum II	Approximately 2004
Video camera: The LOU Flare video camera records at a rate of no less than four frames per minute and views the LOU Flare tip and flame.	*AXIS Q6155-E PTZ*	*June 9, 2021*
Thermocouples: The thermocouples monitor the pilot temperature to verify the pilots are lit. • Flare pilot tip TI-2161A/B • Flare pilot tip TI-2162A/B • Flare pilot tip TI-2163A/B • Flare pilot tip TI-2164A/B • Flare pilot tip TI-2165A/B • Flare pilot tip TI-2166A/B	*Honeywell UOP Callidus pilots with type K thermocouples tsc – 4K30-U-1200-4AS-TT(IL)24*	*September 2020*

Table 20 Existing Monitoring Systems- Aromatics Unit Flare

Equipment	Manufacturer – Model #	Installation Date[9]
Waste Gas and/or Vent Gas flow monitoring: The Waste/Vent Gas flow is monitored by a flow indicator at the entrance to the flare system from the flare header. • 5FI-465B	GE Panametrics - DigitalFlow GF868	Approximately 1996
Waste Gas and/or Vent Gas heat content analyzer: The heat content analyzer consists of a Net Heating Value (NHV) analyzer • 5AC9551	Hombre WIM Compas F	November 21, 2014
Sweep Gas flow monitoring: Sweep Gas is not currently used for the AU Flare.		
Purge and Supplemental Gas flow monitoring: The Purge and Supplemental Gas flow is monitored via an orifice meter. • 5FR-235	Rosemount – 3051CD2A02A1AH2B9K5L4M5Q4	2011
Steam flow monitoring: The steam flow is monitored by a vortex meter. • 5FI-466	*Panametrics – GS868-2-11-100A4-11-0-0*	*October 28, 2020*
Waste Gas and/or Vent Gas molecular weight analyzer: The valve monitoring the Waste/Vent Gas flow to the flare also determines the molecular weight of the material. • 5AI-465	GE Panametrics - DigitalFlow GF868	Approximately 1996
Gas Chromatograph: Not currently applicable for the AU Flare. However, per Paragraph 15A of the Consent Decree, FHR installed a net heating value analyzer system as described above.		
Thermocouples: The thermocouples monitor the pilot temperature to verify the pilots are lit. • 5TR-468AA • 5TR-468AB • 5TR-468BA • 5TR-468BB	Permanent pilots: not currently available based on FHR's documentation after site purchase in 2007 Portable pilots: Liberty Tower & Flare – model # not currently available	1997 2010
Video camera: The AU Flare video camera records at a rate of no less than four frames per minute and views the AU Flare tip and flame.	Axis Q6035E PTZ	April 9, 2020

As the LOU Flare–2 is not currently in use, only the existing equipment specific to the LOU Flare–2 is listed. However, when the LOU Flare–2 is put into service it will comply with the Consent Decree monitoring requirements.

Table 21 Existing Monitoring Systems- LOU Flare-2

Equipment	Manufacturer – Model #	Installation Date[10]
Thermocouples: The thermocouples monitor the pilot temperature to verify the pilots are lit. • TI-2151A/B pilot temperature • TI-2152 A/B pilot temperature • TI-2153 A/B pilot temperature • TI-2154 A/B pilot temperature	Thermo Sensors Corporation – 4K60-U-124-4AS-102	February 2010
Steam flow monitoring: The steam flow is monitored by the same 150 psi stream flow orifice meters that is on the LOUFLARE. • FT-902	GE GS 868 2-11-200A5-11-0-0-0-0	January 11, 2019
Waste Gas and/or Vent Gas flow monitoring Waste Gas: The Waste/Vent Gas flow is monitored by a flow indicator at the entrance to the flare system from the flare header. • FI-909B	GE Panametrics – GF868-2-11-20014-FM-0-0	2010
Vent Gas molecular weight analyzer: The valve monitoring the Waste/Vent gas flow to the flare also determines the molecular weight of the material • AR-909B	GE Panametrics - GF868-2-11-20014-FM-0-0	2010
Video camera: The LOU Flare-2 video camera records at a rate of no less than four frames per minute and views the LOU Flare-2 tip and flame.	*AXIS Q6155-E PTZ*	*August 5, 2020*
Purge and Supplemental Gas flow monitoring: The Purge and Supplemental Gas flow is monitored via a control valve. • FI-9993	Rosemount - 3051CD2A02A1AH2B9E5L4	Approximately 2004

SECTION 9: Monitoring Equipment to be installed to comply with Consent Decree

Monitoring equipment installed since the initial report:

Per Paragraph 15A of the Consent Decree, by December 31, 2014, a Net Heating Value Analyzer shall be installed (at the AU Flare) that will measure continuously and record 5 minute block averages.

> An NHV Analyzer was installed at the AU Flare that measures continuously and records 5 minute block averages on November 21, 2014.

Per Paragraph 15 of the Consent Decree, by June 30, 2014, a video camera shall be installed onsite which will record at a rate of no less than 4 frames per minute.

> Video cameras were installed at LOU Flare, LOU Flare-2, and AU Flare that record at a rate of no less than four frames per minute. The video cameras were installed by January 31, 2014.

Per Paragraph 32 Automatic Control System requirements of the Consent Decree, by December 31, 2014, a supplemental gas flow meter is planned to be installed for the AU Flare.

> A Purge Gas/Supplemental Gas flow meter was installed for the AU Flare in 2011.

Optional equipment to be installed at least one year prior to the termination of the Consent Decree:

> Per Subparagraph 34.b.ii, FHR utilized a NHV Analyzer on the LOU Flare to calculate the NHV of the LOU Flare's Vent Gas instead of using the LOU Flare's Gas Chromatograph. On November 30, 2015, FHR notified Mr. Robert Parrish, Mr. Patrick Foley, and Ms. Jennifer Huser of its intent to utilize a NHV Analyzer effective no later than December 31, 2015.
>
> Motiva Chemicals does not intend to cease operation of the Gas Chromatograph.

Monitoring equipment to be installed:

The Total Steam Flow Monitoring Systems for the LOU and AU were upgraded or replaced as needed to ensure Appendix 1.10 requirements are met as required by Paragraph 15B of the Consent Decree.

Manufacturer and model for the above equipment was described in the appropriate tables above upon installation as the equipment selection is subject to change.

SECTION 10: Methods, Calculations, and control logic to comply with NHV_{cz} and S/VG Requirements

Calculating S/VG for the LOU and AU Flares

The mass flow rate of the steam and the mass flow rate of the vent gas are measured by on-line flow meters for the AU and LOU Flares. Therefore the S/VGmass is determined by the following ratio.

$$\frac{S_{mass}}{VG_{mass}} = \frac{\dot{m}_s}{\dot{m}_{vg}}$$

Calculating NHV_{cz} for the LOU and AU Flares

The NHVcz calculation, methodology and control logic can be found in Appendix 2.1 of the Consent Decree.

The LOU Flare control logic was updated to utilize the LOU Supplemental Gas meter (FC9993) as the minimum Vent Gas flow during the operating scenario when the output of the Vent Gas flow meter (FI9802B) is less than the output of the LOU Supplemental Gas meter.

DWDF Monitoring System

DWDF on each flare is monitored by a video camera. The video camera feed goes to the control room where board operators monitor the flare periodically.

SECTION 11: Identification of Calibration Gases for Appendix 1.10

Calibration gas constituents identified in Appendix 1.10 including hydrogen, nitrogen, methane, ethane, propane, propylene, and ethylene are utilized.

ATTACHMENT A: PORT ARTHUR CHEMICALS FACILITY PLOT PLAN AND SIMPLIFIED PROCESS FLOW DIAGRAM

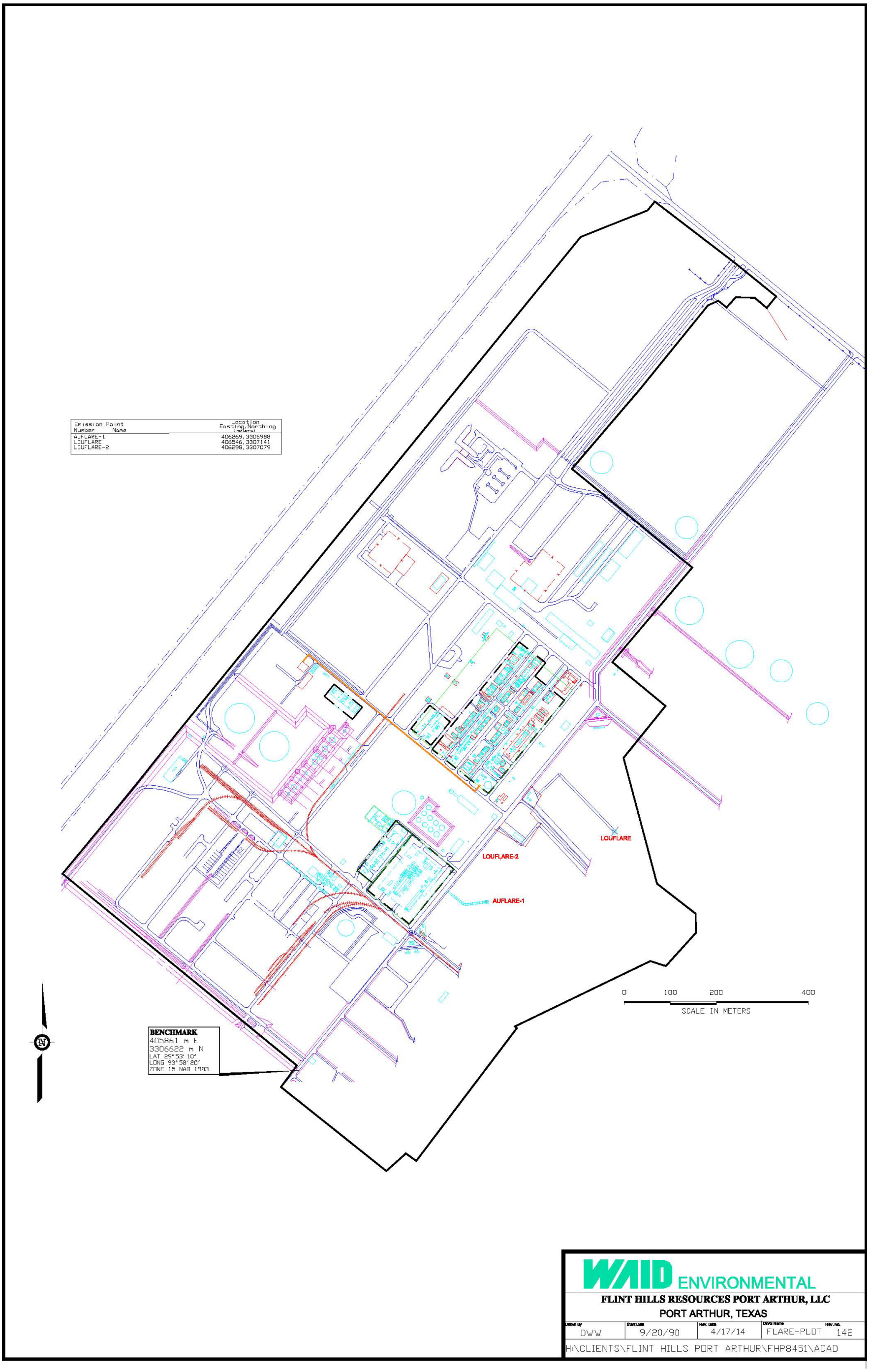

Figure 3 Port Arthur Chemicals Facility Plot Plan

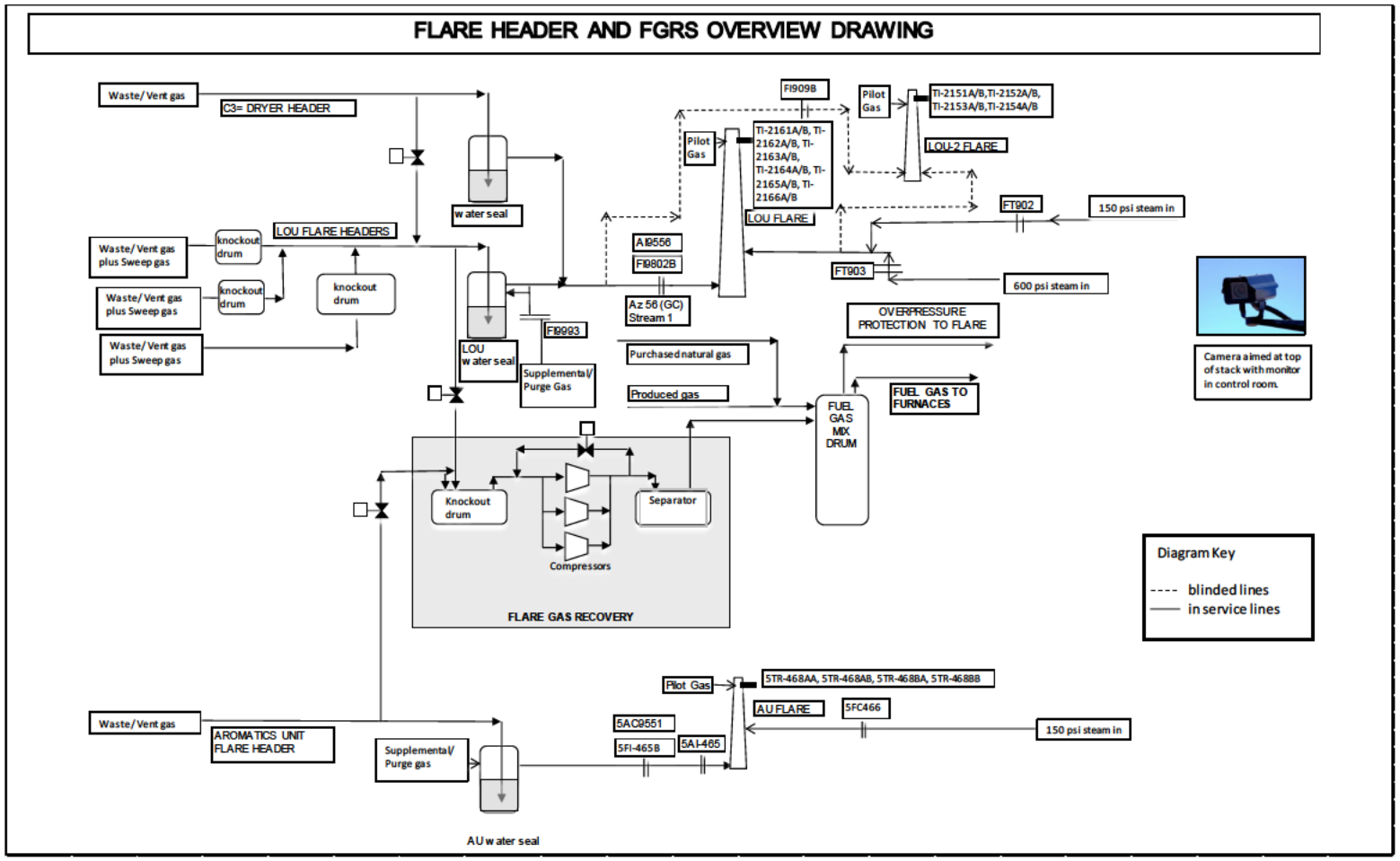

Figure 4 Flare system overview for the facility

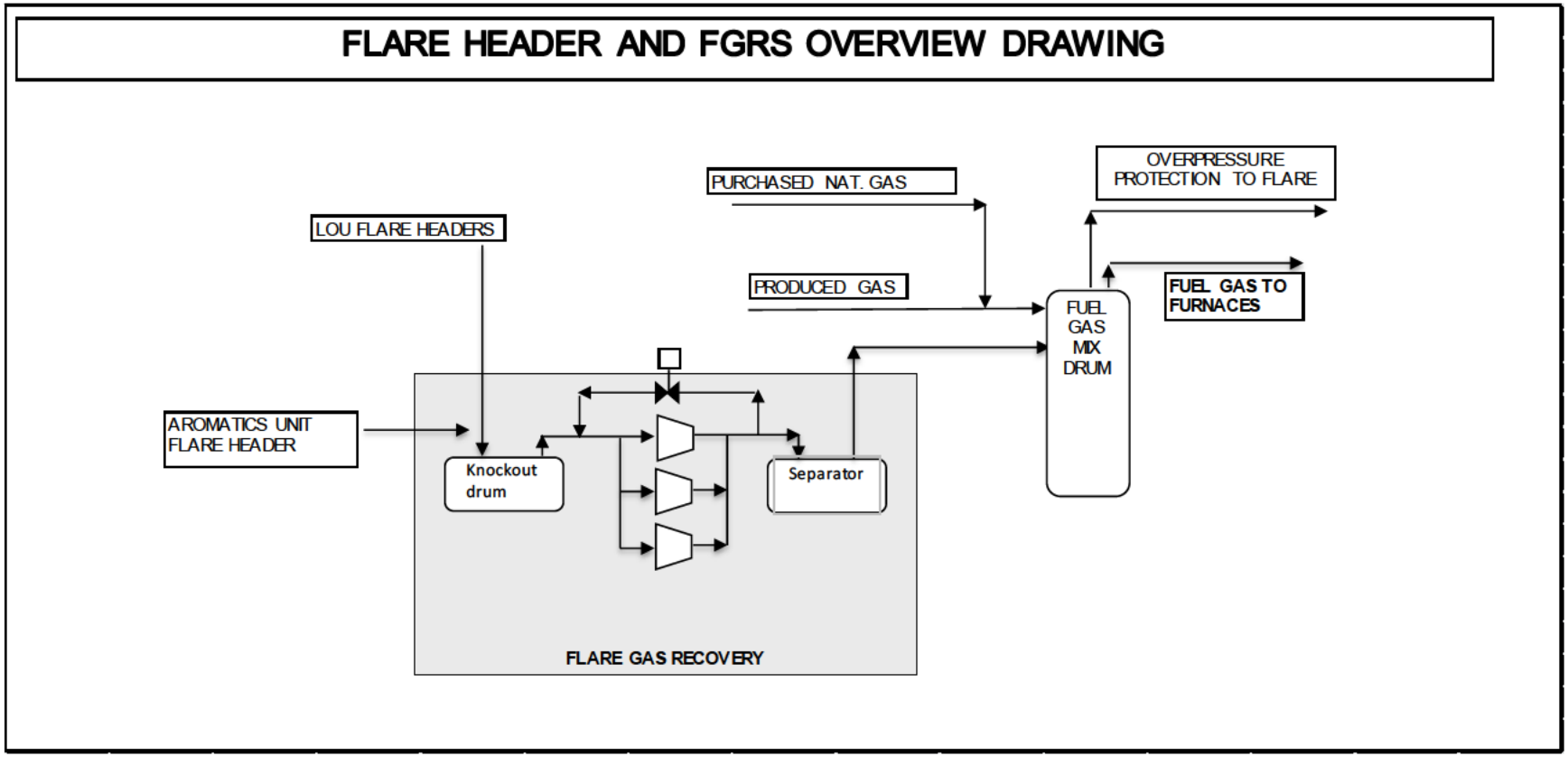

Figure 5 FGRS process flow diagram

ATTACHMENT B: CONFIDENTIAL BUSINESS INFORMATION

This section of the report was submitted as confidential business information under a separate cover letter in a previous submittal.

APPENDIX B-2.1: AU Flare Volumetric and Mass of Waste Gas Flow

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day	30 day Rolling Average Waste Gas Mass Flow rolled every day
	(scfm)	(lbs/hr)
7/1/2021	21.76	53.52
7/2/2021	21.76	53.52
7/3/2021	21.76	53.52
7/4/2021	21.76	53.52
7/5/2021	21.76	53.52
7/6/2021	21.76	53.52
7/7/2021	21.76	53.52
7/8/2021	14.97	37.26
7/9/2021	14.97	37.26
7/10/2021	9.40	23.34
7/11/2021	4.04	10.18
7/12/2021	4.04	10.18
7/13/2021	8.06	20.29
7/14/2021	8.06	20.29
7/15/2021	8.06	20.29
7/16/2021	8.06	20.29
7/17/2021	8.06	20.29
7/18/2021	8.06	20.29
7/19/2021	8.06	20.29
7/20/2021	8.06	20.29
7/21/2021	8.06	20.29
7/22/2021	8.06	20.29
7/23/2021	8.06	20.29
7/24/2021	8.06	20.29
7/25/2021	8.06	20.29
7/26/2021	8.06	20.29
7/27/2021	8.06	20.29
7/28/2021	8.06	20.29
7/29/2021	8.06	20.29
7/30/2021	8.06	20.29
7/31/2021	4.01	10.11
8/1/2021	4.01	10.11
8/2/2021	4.01	10.11
8/3/2021	4.01	10.11
8/4/2021	8.35	20.92
8/5/2021	12.33	30.93
8/6/2021	12.33	30.93
8/7/2021	12.33	30.93
8/8/2021	16.48	41.34
8/9/2021	16.48	41.34
8/10/2021	16.48	41.34
8/11/2021	16.48	41.34
8/12/2021	12.46	31.23
8/13/2021	12.46	31.23
8/14/2021	12.46	31.23
8/15/2021	16.89	42.45
8/16/2021	16.89	42.45
8/17/2021	16.89	42.45
8/18/2021	16.89	42.45
8/19/2021	16.89	42.45
8/20/2021	16.89	42.45
8/21/2021	16.89	42.45
8/22/2021	16.89	42.45
8/23/2021	16.89	42.45
8/24/2021	16.89	42.45
8/25/2021	16.89	42.45
8/26/2021	16.89	42.45
8/27/2021	16.89	42.45
8/28/2021	23.47	55.62
8/29/2021	30.63	71.02
8/30/2021	30.63	71.02
8/31/2021	30.63	71.02
9/1/2021	30.63	71.02

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day (scfm)	30 day Rolling Average Waste Gas Mass Flow rolled every day (lbs/hr)
9/2/2021	30.63	71.02
9/3/2021	26.30	60.21
9/4/2021	22.31	50.20
9/5/2021	26.56	60.91
9/6/2021	32.85	76.49
9/7/2021	28.71	66.07
9/8/2021	28.71	66.07
9/9/2021	28.71	66.07
9/10/2021	28.71	66.07
9/11/2021	28.71	66.07
9/12/2021	28.71	66.07
9/13/2021	32.91	76.71
9/14/2021	28.48	65.50
9/15/2021	28.48	65.50
9/16/2021	28.48	65.50
9/17/2021	28.48	65.50
9/18/2021	28.48	65.50
9/19/2021	28.48	65.50
9/20/2021	28.48	65.50
9/21/2021	28.48	65.50
9/22/2021	28.48	65.50
9/23/2021	28.48	65.50
9/24/2021	28.48	65.50
9/25/2021	28.48	65.50
9/26/2021	28.48	65.50
9/27/2021	21.90	52.33
9/28/2021	14.74	36.92
9/29/2021	14.74	36.92
9/30/2021	14.74	36.92
10/1/2021	14.74	36.92
10/2/2021	14.74	36.92
10/3/2021	14.74	36.92
10/4/2021	14.74	36.92
10/5/2021	10.49	26.21
10/6/2021	4.20	10.64
10/7/2021	8.45	21.43
10/8/2021	8.45	21.43
10/9/2021	8.45	21.43
10/10/2021	8.45	21.43
10/11/2021	8.45	21.43
10/12/2021	8.45	21.43
10/13/2021	4.25	10.80
10/14/2021	4.25	10.80
10/15/2021	8.95	24.17
10/16/2021	8.95	24.17
10/17/2021	8.95	24.17
10/18/2021	8.95	24.17
10/19/2021	8.95	24.17
10/20/2021	8.95	24.17
10/21/2021	8.95	24.17
10/22/2021	8.95	24.17
10/23/2021	8.95	24.17
10/24/2021	8.95	24.17
10/25/2021	13.10	34.62
10/26/2021	17.15	44.88
10/27/2021	21.45	55.72
10/28/2021	26.01	67.32
10/29/2021	30.60	78.98
10/30/2021	35.25	90.77
10/31/2021	41.38	106.64
11/1/2021	49.12	126 23
11/2/2021	55.12	141.46
11/3/2021	59.54	152.62

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day	30 day Rolling Average Waste Gas Mass Flow rolled every day
	(scfm)	(lbs/hr)
11/4/2021	65.24	166 96
11/5/2021	75.55	192 21
11/6/2021	76.05	193 36
11/7/2021	82.71	209.79
11/8/2021	87.68	222.42
11/9/2021	91.96	233 27
11/10/2021	96.06	243.64
11/11/2021	101.97	258 80
11/12/2021	107.42	272 08
11/13/2021	107.42	272 08
11/14/2021	108.20	272 25
11/15/2021	113.59	285 55
11/16/2021	119.90	301.47
11/17/2021	124.69	313 33
11/18/2021	129.37	324 98
11/19/2021	134.09	336 89
11/20/2021	139.18	349.40
11/21/2021	144.35	361 83
11/22/2021	150.23	375 83
11/23/2021	156.02	389.60
11/24/2021	157.25	392 01
11/25/2021	161.13	399.79
11/26/2021	166.06	409 01
11/27/2021	170.10	413.11
11/28/2021	175.30	419.76
11/29/2021	182.55	433 26
11/30/2021	188.06	442.45
12/1/2021	192.37	448 33
12/2/2021	195.02	452 80
12/3/2021	196.73	456.43
12/4/2021	191.02	442 09
12/5/2021	186.61	430.76
12/6/2021	189.62	437 37
12/7/2021	189.10	435.10
12/8/2021	190.35	436.64
12/9/2021	186.06	425.79
12/10/2021	187.96	430.11
12/11/2021	188.75	431 31
12/12/2021	183.31	418 03
12/13/2021	188.97	431 94
12/14/2021	183.50	418 39
12/15/2021	178.11	405 09
12/16/2021	171.80	389.17
12/17/2021	167.00	377 31
12/18/2021	162.32	365.66
12/19/2021	157.60	353.75
12/20/2021	152.51	341 25
12/21/2021	147.34	328 81
12/22/2021	141.46	314 82
12/23/2021	135.68	301 04
12/24/2021	130.30	288.18
12/25/2021	122.36	270.15
12/26/2021	113.13	250 08
12/27/2021	104.52	234 38
12/28/2021	94.74	216 07
12/29/2021	82.85	190.78
12/30/2021	71.20	165.72
12/31/2021	59.16	140 25
1/1/2022	50.50	120 55
1/2/2022	44.37	105.76
1/3/2022	44.37	105.76
1/4/2022	38.48	91.84
1/5/2022	30.72	73.29

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day (scfm)	30 day Rolling Average Waste Gas Mass Flow rolled every day (lbs/hr)
1/6/2022	24.58	59.12
1/7/2022	18.37	44.96
1/8/2022	18.37	44.96
1/9/2022	12.37	30.26
1/10/2022	5.66	13.90
1/11/2022	5.66	13.90
1/12/2022	0.00	0.00
1/13/2022	0.00	0.00
1/14/2022	0.00	0.00
1/15/2022	0.00	0.00
1/16/2022	0.00	0.00
1/17/2022	0.00	0.00
1/18/2022	0.00	0.00
1/19/2022	0.00	0.00
1/20/2022	0.00	0.00
1/21/2022	0.00	0.00
1/22/2022	0.00	0.00
1/23/2022	0.00	0.00
1/24/2022	0.00	0.00
1/25/2022	0.00	0.00
1/26/2022	0.00	0.00
1/27/2022	0.00	0.00
1/28/2022	0.00	0.00
1/29/2022	0.00	0.00
1/30/2022	0.00	0.00
1/31/2022	0.00	0.00
2/1/2022	0.00	0.00
2/2/2022	0.00	0.00
2/3/2022	0.00	0.00
2/4/2022	0.00	0.00
2/5/2022	0.00	0.00
2/6/2022	0.00	0.00
2/7/2022	0.00	0.00
2/8/2022	0.00	0.00
2/9/2022	0.00	0.00
2/10/2022	0.00	0.00
2/11/2022	0.00	0.00
2/12/2022	0.00	0.00
2/13/2022	0.00	0.00
2/14/2022	0.00	0.00
2/15/2022	0.00	0.00
2/16/2022	0.00	0.00
2/17/2022	0.00	0.00
2/18/2022	0.00	0.00
2/19/2022	0.00	0.00
2/20/2022	0.00	0.00
2/21/2022	0.00	0.00
2/22/2022	0.00	0.00
2/23/2022	0.00	0.00
2/24/2022	0.00	0.00
2/25/2022	0.00	0.00
2/26/2022	0.00	0.00
2/27/2022	0.00	0.00
2/28/2022	0.00	0.00
3/1/2022	0.00	0.00
3/2/2022	0.00	0.00
3/3/2022	0.00	0.00
3/4/2022	0.00	0.00
3/5/2022	0.00	0.00
3/6/2022	0.00	0.00
3/7/2022	14.62	34.45
3/8/2022	31.19	78.43
3/9/2022	45.51	117 94

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day (scfm)	30 day Rolling Average Waste Gas Mass Flow rolled every day (lbs/hr)
3/10/2022	57.51	152 92
3/11/2022	73.04	200.41
3/12/2022	85.24	235.63
3/13/2022	99.70	281 04
3/14/2022	99.70	281 04
3/15/2022	115.26	331 58
3/16/2022	128.38	369 84
3/17/2022	141.64	408.45
3/18/2022	154.43	444.64
3/19/2022	167.01	480 98
3/20/2022	179.26	516.68
3/21/2022	192.40	555 05
3/22/2022	207.69	620 05
3/23/2022	222.16	676.61
3/24/2022	236.31	733 96
3/25/2022	249.55	783 51
3/26/2022	261.80	831 53
3/27/2022	273.23	875 33
3/28/2022	284.96	921 32
3/29/2022	298.28	967.17
3/30/2022	311.40	1018.22
3/31/2022	325.43	1071.55
4/1/2022	339.53	1119.80
4/2/2022	351.04	1154.26
4/3/2022	363.80	1193.04
4/4/2022	376.54	1231.01
4/5/2022	388.86	1267.07
4/6/2022	385.94	1266.66
4/7/2022	381.00	1256.61
4/8/2022	378.31	1251.56
4/9/2022	378.12	1251.61
4/10/2022	374.17	1238.04
4/11/2022	373.58	1236.64
4/12/2022	370.98	1225.69
4/13/2022	382.70	1259.52
4/14/2022	379.00	1243.48
4/15/2022	377.71	1238.98
4/16/2022	376.25	1234.30
4/17/2022	375.16	1231.63
4/18/2022	374.17	1228.17
4/19/2022	373.71	1227.05
4/20/2022	371.94	1221.49
4/21/2022	367.88	1188.72
4/22/2022	364.49	1164.15
4/23/2022	361.61	1139.15
4/24/2022	359.54	1121.59
4/25/2022	360.82	1117.61
4/26/2022	361.20	1108.72
4/27/2022	369.97	1124.38
4/28/2022	378.85	1142.64
4/29/2022	380.86	1135.05
4/30/2022	378.22	1113.13
5/1/2022	375.77	1095.33
5/2/2022	376.31	1091.11
5/3/2022	375.91	1082.85
5/4/2022	375.55	1075.56
5/5/2022	406.35	1105.59
5/6/2022	428.49	1133.10
5/7/2022	428.42	1121.64
5/8/2022	428.35	1107.86
5/9/2022	416.53	1072.83
5/10/2022	416.11	1058.76
5/11/2022	418.03	1056.26

Motiva Chemicals LLC (PAC)
AU Flare - Volumetric (in scfm) and Mass (in pounds) of Waste Gas flow

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day	30 day Rolling Average Waste Gas Mass Flow rolled every day
	(scfm)	(lbs/hr)
5/12/2022	406.17	1021.80
5/13/2022	394.45	987 97
5/14/2022	382.60	953.47
5/15/2022	370.76	919.71
5/16/2022	358.97	885.78
5/17/2022	347.27	852 26
5/18/2022	335.67	819 37
5/19/2022	323.88	784 81
5/20/2022	316.52	762 04
5/21/2022	305.29	729 80
5/22/2022	294.20	697 81
5/23/2022	282.94	665.47
5/24/2022	271.77	633.47
5/25/2022	258.23	589.44
5/26/2022	250.60	565 01
5/27/2022	230.10	503 36
5/28/2022	207.90	439 25
5/29/2022	192.77	395.78
5/30/2022	181.38	364 38
5/31/2022	169.74	333 92
6/1/2022	157.68	303.68
6/2/2022	145.32	273.16
6/3/2022	132.94	242.49
6/4/2022	89.82	176 39
6/5/2022	55.98	114 84
6/6/2022	44.42	92.37
6/7/2022	32.87	71.70
6/8/2022	36.70	81.46
6/9/2022	25.54	61.60
6/10/2022	12.01	30.28
6/11/2022	24.19	48.08
6/12/2022	35.25	62.81
6/13/2022	46.56	77.16
6/14/2022	58.47	92.60
6/15/2022	70.83	109 39
6/16/2022	85.02	132 96
6/17/2022	85.02	132 96
6/18/2022	85.02	132 96
6/19/2022	81.01	122 92
6/20/2022	81.01	122 92
6/21/2022	81.01	122 92
6/22/2022	81.01	122 92
6/23/2022	81.01	122 92
6/24/2022	81.01	122 92
6/25/2022	76.84	112.44
6/26/2022	76.84	112.44
6/27/2022	76.84	112.44
6/28/2022	76.84	112.44
6/29/2022	76.84	112.44
6/30/2022	76.84	112.44

APPENDIX B-2.2: LOU Flare Volumetric and Mass of Waste Gas Flow

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day	30 day Rolling Average Waste Gas Mass Flow rolled every day
	(scfm)	(lbs/hr)
7/1/2021	31.85	168.17
7/2/2021	26.24	141.52
7/3/2021	15.23	78.97
7/4/2021	15.23	78.97
7/5/2021	15.23	78.97
7/6/2021	15.23	78.97
7/7/2021	23.13	107.28
7/8/2021	32.11	135.49
7/9/2021	32.11	135.49
7/10/2021	45.77	189.50
7/11/2021	45.77	189.50
7/12/2021	45.77	189.50
7/13/2021	72.16	275.57
7/14/2021	86.39	343.74
7/15/2021	99.14	398.06
7/16/2021	112.54	456.34
7/17/2021	125.94	510.39
7/18/2021	139.03	564.90
7/19/2021	149.75	647.35
7/20/2021	149.75	647.35
7/21/2021	149.75	647.35
7/22/2021	164.18	727.11
7/23/2021	183.38	837.58
7/24/2021	183.38	837.58
7/25/2021	183.38	837.58
7/26/2021	183.38	837.58
7/27/2021	183.38	837.58
7/28/2021	183.38	837.58
7/29/2021	183.38	837.58
7/30/2021	183.38	837.58
7/31/2021	176.94	799.04
8/1/2021	180.96	803.60
8/2/2021	180.96	803.60
8/3/2021	180.96	803.60
8/4/2021	315.46	1270.87
8/5/2021	326.97	1307.93
8/6/2021	334.59	1309.54
8/7/2021	337.19	1328.24
8/8/2021	355.31	1395.95
8/9/2021	359.52	1378.70
8/10/2021	371.81	1422.52
8/11/2021	381.61	1460.66
8/12/2021	355.22	1374.60
8/13/2021	354.05	1356.70
8/14/2021	353.45	1346.82
8/15/2021	352.95	1336.44
8/16/2021	352.54	1337.73
8/17/2021	358.16	1361.10
8/18/2021	367.20	1365.98
8/19/2021	380.27	1425.34
8/20/2021	389.58	1467.93
8/21/2021	375.15	1388.17
8/22/2021	355.95	1277.70
8/23/2021	355.95	1277.70
8/24/2021	355.95	1277.70
8/25/2021	355.95	1277.70
8/26/2021	369.04	1323.50
8/27/2021	382.13	1374.61
8/28/2021	1452.99	7054.16
8/29/2021	1670.94	8078.60
8/30/2021	1680.36	8110.98
8/31/2021	1683.12	8128.93
9/1/2021	1683.12	8128.93

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day	30 day Rolling Average Waste Gas Mass Flow rolled every day
	(scfm)	(lbs/hr)
9/2/2021	1691.10	8155.51
9/3/2021	1569.35	7716.09
9/4/2021	1557.84	7679.02
9/5/2021	1692.71	8168.06
9/6/2021	1702.61	8203.56
9/7/2021	1684.49	8135.85
9/8/2021	1666.63	8099.09
9/9/2021	1670.85	8090.64
9/10/2021	1671.08	8091.90
9/11/2021	1679.68	8127.29
9/12/2021	1675.65	8113.71
9/13/2021	1672.28	8113.17
9/14/2021	1666.94	8100.40
9/15/2021	1670.42	8084.26
9/16/2021	1651.71	8006.38
9/17/2021	1631.95	7919.04
9/18/2021	1632.27	7897.34
9/19/2021	1622.95	7854.76
9/20/2021	1622.95	7854.76
9/21/2021	1622.95	7854.76
9/22/2021	1622.95	7854.76
9/23/2021	1622.95	7854.76
9/24/2021	1622.95	7854.76
9/25/2021	1609.87	7808.95
9/26/2021	1596.77	7757.84
9/27/2021	540.17	2102.69
9/28/2021	331.49	1117.56
9/29/2021	336.19	1108.73
9/30/2021	323.77	1055.46
10/1/2021	323.77	1055.46
10/2/2021	322.95	1048.21
10/3/2021	310.20	1020.38
10/4/2021	310.20	1020.38
10/5/2021	159.80	501.41
10/6/2021	138.33	419.00
10/7/2021	138.33	419.00
10/8/2021	200.07	608.97
10/9/2021	183.55	573.60
10/10/2021	173.53	534.20
10/11/2021	164.93	498.81
10/12/2021	155.89	462.11
10/13/2021	147.12	418.21
10/14/2021	139.56	383.08
10/15/2021	134.43	377.61
10/16/2021	134.43	377.61
10/17/2021	134.43	377.61
10/18/2021	136.44	374.12
10/19/2021	210.64	716.78
10/20/2021	221.42	763.53
10/21/2021	236.28	788.74
10/22/2021	236.28	788.74
10/23/2021	236.28	788.74
10/24/2021	236.28	788.74
10/25/2021	236.28	788.74
10/26/2021	236.28	788.74
10/27/2021	222.02	764.34
10/28/2021	230.14	743.02
10/29/2021	224.58	727.50
10/30/2021	236.94	735.14
10/31/2021	244.93	748.56
11/1/2021	237.78	729.22
11/2/2021	237.78	729.22
11/3/2021	237.78	729.22

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day	30 day Rolling Average Waste Gas Mass Flow rolled every day
	(scfm)	(lbs/hr)
11/4/2021	237.78	729.22
11/5/2021	237.78	729.22
11/6/2021	237.78	729.22
11/7/2021	176.04	539.25
11/8/2021	176.04	539.25
11/9/2021	176.04	539.25
11/10/2021	176.04	539.25
11/11/2021	181.71	557.53
11/12/2021	181.71	557.53
11/13/2021	181.71	557.53
11/14/2021	170.37	523.81
11/15/2021	170.37	523.81
11/16/2021	170.37	523.81
11/17/2021	154.96	489.64
11/18/2021	80.76	146.97
11/19/2021	69.99	100.23
11/20/2021	55.13	75.02
11/21/2021	55.13	75.02
11/22/2021	55.13	75.02
11/23/2021	55.13	75.02
11/24/2021	64.95	95.29
11/25/2021	74.20	118.31
11/26/2021	110.78	240.27
11/27/2021	93.39	222.28
11/28/2021	84.84	214.24
11/29/2021	69.32	196.95
11/30/2021	61.32	183.53
12/1/2021	61.32	183.53
12/2/2021	61.32	183.53
12/3/2021	61.32	183.53
12/4/2021	61.32	183.53
12/5/2021	61.32	183.53
12/6/2021	61.32	183.53
12/7/2021	61.32	183.53
12/8/2021	61.32	183.53
12/9/2021	61.32	183.53
12/10/2021	73.29	209.47
12/11/2021	77.97	213.17
12/12/2021	89.21	230.98
12/13/2021	89.21	230.98
12/14/2021	89.21	230.98
12/15/2021	103.05	266.29
12/16/2021	111.12	293.46
12/17/2021	118.54	318.06
12/18/2021	126.25	351.29
12/19/2021	132.13	371.66
12/20/2021	140.35	414.69
12/21/2021	140.35	414.69
12/22/2021	140.35	414.69
12/23/2021	157.39	439.25
12/24/2021	147.56	418.98
12/25/2021	138.31	395.95
12/26/2021	101.73	273.99
12/27/2021	101.73	273.99
12/28/2021	110.01	299.34
12/29/2021	116.97	325.91
12/30/2021	123.59	348.46
12/31/2021	129.56	367.93
1/1/2022	135.61	388.15
1/2/2022	141.93	409.19
1/3/2022	157.01	430.36
1/4/2022	157.01	430.36
1/5/2022	167.29	466.59

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day	30 day Rolling Average Waste Gas Mass Flow rolled every day
	(scfm)	(lbs/hr)
1/6/2022	179.69	489.65
1/7/2022	186.25	513.50
1/8/2022	197.96	547.96
1/9/2022	185.99	522.03
1/10/2022	175.64	500.04
1/11/2022	164.40	482.23
1/12/2022	164.40	482.23
1/13/2022	171.67	493.80
1/14/2022	157.84	458.48
1/15/2022	160.63	442.62
1/16/2022	166.88	433.34
1/17/2022	166.83	427.47
1/18/2022	176.02	461.11
1/19/2022	184.28	440.51
1/20/2022	187.33	469.55
1/21/2022	192.30	501.57
1/22/2022	182.96	522.18
1/23/2022	193.34	570.28
1/24/2022	201.07	622.00
1/25/2022	201.07	622.00
1/26/2022	210.99	653.71
1/27/2022	202.71	628.37
1/28/2022	195.75	601.80
1/29/2022	200.73	592.40
1/30/2022	194.76	572.93
1/31/2022	188.71	552.70
2/1/2022	190.63	559.36
2/2/2022	175.55	538.19
2/3/2022	175.55	538.19
2/4/2022	165.27	501.96
2/5/2022	152.87	478.89
2/6/2022	146.31	455.05
2/7/2022	139.02	428.58
2/8/2022	145.00	450.54
2/9/2022	153.02	478.30
2/10/2022	153.02	478.30
2/11/2022	153.02	478.30
2/12/2022	155.10	484.63
2/13/2022	155.10	484.63
2/14/2022	144.23	473.32
2/15/2022	130.57	458.01
2/16/2022	122.90	430.64
2/17/2022	107.84	376.64
2/18/2022	91.36	354.21
2/19/2022	106.26	347.55
2/20/2022	113.29	337.60
2/21/2022	105.59	292.42
2/22/2022	101.52	266.27
2/23/2022	93.78	214.55
2/24/2022	101.80	233.32
2/25/2022	91.89	201.61
2/26/2022	100.81	216.32
2/27/2022	107.56	231.85
2/28/2022	104.75	229.53
3/1/2022	104.75	229.53
3/2/2022	104.75	229.53
3/3/2022	96.51	201.84
3/4/2022	112.52	216.92
3/5/2022	117.94	228.10
3/6/2022	245.16	745.42
3/7/2022	1036.53	4400.10
3/8/2022	1248.22	5343.57
3/9/2022	1465.28	6123.55

Motiva Chemicals LLC (PAC)
LOU Flare - Volumetric (in scfm) and Mass (in pounds) of Waste Gas Flow

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day	30 day Rolling Average Waste Gas Mass Flow rolled every day
	(scfm)	(lbs/hr)
3/10/2022	1639.98	7163.80
3/11/2022	1719.19	7851.67
3/12/2022	1776.60	8400.98
3/13/2022	1803.87	8610.44
3/14/2022	1853.57	8597.93
3/15/2022	1885.79	8724.92
3/16/2022	1916.10	8817.74
3/17/2022	1919.75	8821.22
3/18/2022	1921.89	8827.88
3/19/2022	1923.41	8832.37
3/20/2022	1925.53	8838.50
3/21/2022	1910.34	8824.76
3/22/2022	1899.85	8807.30
3/23/2022	1900.55	8809.49
3/24/2022	1894.66	8789.57
3/25/2022	1894.66	8789.62
3/26/2022	1886.64	8770.85
3/27/2022	1886.64	8770.85
3/28/2022	1877.73	8756.14
3/29/2022	1870.97	8740.61
3/30/2022	1862.18	8729.78
3/31/2022	1862.18	8729.78
4/1/2022	1862.18	8729.78
4/2/2022	1862.18	8729.78
4/3/2022	1846.17	8714.70
4/4/2022	1840.75	8703.55
4/5/2022	1713.53	8186.23
4/6/2022	922.17	4531.55
4/7/2022	710.48	3588.08
4/8/2022	488.99	2800.10
4/9/2022	308.32	1737.89
4/10/2022	221.09	1022.34
4/11/2022	164.11	477.84
4/12/2022	136.99	269.44
4/13/2022	78.05	268.96
4/14/2022	45.95	148.58
4/15/2022	15.66	57.13
4/16/2022	12.22	58.59
4/17/2022	10.24	54.76
4/18/2022	8.81	57.80
4/19/2022	6.79	54.09
4/20/2022	4.27	49.53
4/21/2022	3.18	65.21
4/22/2022	4.89	100.07
4/23/2022	4.79	137.38
4/24/2022	7.02	161.19
4/25/2022	7.85	183.38
4/26/2022	8.39	210.15
4/27/2022	9.30	250.04
4/28/2022	11.06	328.18
4/29/2022	13.00	332.73
4/30/2022	41.28	443.61
5/1/2022	128.50	946.04
5/2/2022	500.66	2593.42
5/3/2022	791.78	4125.10
5/4/2022	1387.36	7420.49
5/5/2022	1573.51	8589.79
5/6/2022	1792.30	9631.32
5/7/2022	1875.54	10132.84
5/8/2022	1922.10	10404.30
5/9/2022	1969.84	10676.00
5/10/2022	2030.66	10978.46
5/11/2022	2094.36	11286.51

Motiva Chemicals LLC (PAC)
LOU Flare - Volumetric (in scfm) and Mass (in pounds) of Waste Gas Flow

Date/ Time	30 day Rolling Average Waste Gas Volumetric Flow rolled every day	30 day Rolling Average Waste Gas Mass Flow rolled every day
	(scfm)	(lbs/hr)
5/12/2022	2132.38	11471.83
5/13/2022	2150.24	11538.95
5/14/2022	2163.42	11572.87
5/15/2022	2187.96	11654.99
5/16/2022	2228.37	11794.34
5/17/2022	2241.62	11830.57
5/18/2022	2249.83	11849.70
5/19/2022	2256.74	11870.08
5/20/2022	2274.62	11938.07
5/21/2022	2290.13	11958.12
5/22/2022	2308.78	11975.82
5/23/2022	2330.28	11996.56
5/24/2022	2334.54	11999.57
5/25/2022	2337.50	11991.53
5/26/2022	2343.09	11985.45
5/27/2022	2354.13	11984.46
5/28/2022	2372.07	11957.56
5/29/2022	2397.14	12035.58
5/30/2022	2397.24	12011.30
5/31/2022	2321.03	11555.45
6/1/2022	1950.95	9917.87
6/2/2022	1667.74	8425.55
6/3/2022	1087.28	5190.82
6/4/2022	910.34	4063.24
6/5/2022	717.60	3105.96
6/6/2022	664.59	2699.46
6/7/2022	634.91	2500.65
6/8/2022	592.74	2248.00
6/9/2022	536.14	1957.83
6/10/2022	547.14	1945.12
6/11/2022	553.57	2062.59
6/12/2022	568.66	2136.23
6/13/2022	595.28	2262.59
6/14/2022	617.60	2343.86
6/15/2022	618.89	2358.36
6/16/2022	648.15	2482.00
6/17/2022	846.54	3580.40
6/18/2022	919.16	3866.94
6/19/2022	904.48	3804.94
6/20/2022	892.24	3775.32
6/21/2022	874.20	3729.42
6/22/2022	877.29	3750.29
6/23/2022	885.76	3773.71
6/24/2022	881.97	3759.56
6/25/2022	875.84	3738.88
6/26/2022	872.50	3719.34
6/27/2022	855.20	3675.03
6/28/2022	832.57	3605.46
6/29/2022	806.55	3525.71
6/30/2022	803.74	3489.40

APPENDIX C
Affirmative Relief Section V: LDAR Reporting

APPENDIX C-1: Paragraphs 60 through 70 (Subsection V. G)

Motiva Chemicals' responses to the requirements below cover the period from January 01, 2022 to June 30, 2022.

61. ***<u>Pro-Active Valve Tightening Work Practices Relating to each New Valve that is Installed and each Existing Valve that is Repacked.</u> FHR shall undertake the following work practices with respect to each new valve that is installed (whether the new valve replaces an Existing Valve or is newly added to a Covered Process Unit), or each Existing Valve that is repacked:***

a. Upon installation (or re-installation in the case of repacking), FHR shall ensure that the valve's packing gland nuts or their equivalent (e.g., pushers) are tightened to: (i) the manufacturer's recommended gland nut or packing torque; or (ii) any appropriate tightness that will minimize the potential for fugitive emission leaks of any magnitude. This practice shall be implemented prior to the valve's exposure (or re-exposure, in the case of repacking) to process fluids.

b. Except for control valves, not less than 3 days nor more than 17 days after a new valve that has been installed or an Existing Valve that has been repacked first is exposed to process fluids at operating conditions, FHR shall ensure that the packing gland nuts or their equivalent (e.g., pushers) are or were tightened to: (i) the manufacturer's recommended gland nut or packing torque; or (ii) any appropriate tightness that will minimize the potential for fugitive emission leaks of any magnitude.

During the Reporting Period, defined as starting on January 01, 2022 and ending June 30, 2022, component installation tightening and follow-up 3 and 17 day final torquing were performed as described above. Table C-1.1 below details the number of valves installed and repacked and the number of instances when an initial or final torque was not performed. (See Appendix C-5 for additional detail.)

Table C-1.1 Pro-active Valve Tightening

Total Valves Repacked/New Install	Repacked	New Install	Missed Initial or Final Torques
1,681	396	1,285	0

62. ***<u>Optional Pro Active Monitoring and Repair Practices relating to all Valves.</u>***

a. FHR may undertake Method 21 or FLIR monitoring: (i) during or immediately following any recheck done pursuant to Paragraph 61.b; and (ii) after a valve is placed back into service following a maintenance or equipment shutdown event that involves thermal cycling. This

monitoring shall be in addition to, and not in lieu of, periodic monitoring. Any Screening Values recorded during Method 21 monitoring that exceed the applicable regulatory leak definitions shall be included in calculating the leak rate of the Covered Process Unit where the leak was found. Any leaks detected by FLIR monitoring either shall be followed up with Method 21 monitoring as soon as practicable but not more than 1 day after the FLIR monitoring or shall be recorded as a leak within FHR's electronic LDAR data management system and repaired consistent with Paragraph 52. Any Screening Values recorded during the follow up Method 21 monitoring that exceed the applicable regulatory leak definitions shall be included in calculating the leak rate of the Covered Process Unit where the leak was found.

Motiva Chemicals has a process to ensure that FLIR monitoring is performed at predetermined intervals at the site. Additionally, Motiva Chemicals' practice is to perform FLIR monitoring after an equipment shutdown involving thermal cycling. Any leaks detected with the FLIR camera are followed up with Method 21 or recorded into the electronic LDAR management system

b. Detection of the following Screening Values during monitoring under Paragraph 62.a (regardless of whether it is initial Method 21 monitoring or follow up Method 21 monitoring after FLIR monitoring) shall be treated as follows: (i) for each Screening Value at or above 250 ppm, FHR shall comply with Paragraphs 52–56 and 58; (ii) for each Screening Value that also is at or above 500 ppm, FHR shall comply with all regulatory requirements related to that Screening Value; and (iii) FHR shall not be required to comply with Paragraph 64 for any Screening Value detected during monitoring conducted pursuant to this Paragraph.

(i) Motiva Chemicals follows the steps outlined in Paragraphs 52-56 and 58 for leaks at or above 250 ppm. (ii) Additionally, Motiva Chemicals follows all regulatory requirements upon finding leaks at or above the 500 ppm. (iii) Motiva Chemicals will follow the requirements of Paragraph 64 when anything is found with the FLIR camera and a Method 21 monitoring will be performed.

63. ***<u>Installing New Valves.</u> Except as provided in Subparagraphs 63.a, 63.b, or Paragraph 65, FHR shall ensure that each new valve (other than a valve that serves as an OELCD) that it installs in each Covered Process Unit, and that, when installed, will be regulated under LDAR, is either a Low-E Valve or is fitted with Low-E Packing. This requirement applies to entirely new valves that are added to a Covered Process Unit and to Existing Valves that are replaced for whatever reason in a Covered Process Unit.***

Motiva Chemicals has a process to ensure that valves procured and installed at the site meet the specified Low-E requirements. During this Reporting Period, valve subject to this Paragraph were replaced or repacked using Low-E Valves or Low-E Packing.

a. Paragraph 63 shall not apply in emergencies or exigent circumstances requiring immediate installation or replacement of a valve where a Low-E Valve or Low-E Packing is not available on a timely basis. Any such instance shall be reported in the next ELP compliance status report.

During this Reporting Period, there were no emergencies or exigent circumstances in which Low-E Valves or Low-E Packing were not available on a timely basis.

b. Paragraph 63 shall not apply to valves that are installed temporarily for a short-term purpose and then removed (e.g., valves connecting a portion of the Covered Process Unit to a testing device).

Motiva Chemicals has a process to ensure that valves procured and installed at the site meet the specified Low-E requirements. Although Motiva Chemicals' process is designed such that all valves procured and installed at the site are Low-E, the process does acknowledge the alternative to use of non-Low-E valves for certain temporary, short-term purposes.

64. <u>Replacing or Repacking Valves that have Screening Values at or above 250 ppm with Low-E Valves or Low-E Packing</u>

a. Paragraph 64.b–64.d are in addition to, and not in lieu of, Delay of Repair requirements in applicable LDAR regulations and in this ELP. Nothing in Subparagraphs 64.b–64.d is intended to modify or revise Delay of Repair requirements.

b. Existing Valves Required to Be Replaced or Repacked

i. <u>All Covered Process Units Except LOU and OSBL Equipment.</u> Except as provided in Paragraph 65, for each Existing Valve in all Covered Process Units except the LOU and OSBL Equipment that has a Screening Value at or above 250 ppm during any monitoring event, FHR shall replace or repack the Existing Valve with a Low E Valve or with Low-E Packing by no later than: (1) 30 days after the monitoring event that triggers the replacement or repacking requirement; (2) if the valve is removed from service within 30 days after the monitoring event that triggers the replacement or repacking, the date the valve is returned to service; or (3) if replacement or repacking cannot be undertaken pursuant to (1) or is not undertaken pursuant to (2),

by no later than the first Turnaround after the triggering monitoring event. Valves identified with a Screening Value equal to or greater than 250 ppm during the time period that is ninety (90) days prior to the Turnaround shall be excluded from the requirement in (3). However, these valves shall be replaced or repacked during the subsequent Covered Process Unit Turnaround, if such a Turnaround occurs during the pendency of this Consent Decree.

Motiva Chemicals has a process whereby valves with a screening value equal to or greater than 250 ppm are replaced, repacked, or placed on a Turnaround list for the applicable Covered Process Unit within the time periods as defined in Subparagraph 64.b.i. See Table C-1.2 below for a summary of these valves.

ii. <u>LOU</u>

(1) Valves that can be replaced or repacked during LOU operation. Except as provided in Paragraph 65, for each Existing Valve in the LOU that has a Screening Value at or above 250 ppm during any monitoring event and that can be replaced or repacked during the operation of the LOU, FHR shall replace or repack the Existing Valve with a Low E Valve or with Low E Packing by no later than (1) 30 days after the monitoring event that triggers the replacement or repacking requirement; or (2) if the valve is removed from service within 30 days after the monitoring event that triggers the replacement or repacking, the date the valve is returned to service.

(2) Valves that cannot be replaced or repacked during LOU operation.

(a) Priority List. For valves that cannot be replaced or repacked during LOU operation, by no later than ninety days prior to the first LOU Turnaround that occurs after the Date of Entry, FHR shall generate a list of all Existing Valves within the LOU that had Screening Values equal to or greater than 250 ppm during any monitoring event that took place between the completion of the Fall 2012 LOU Turnaround and ninety days prior to the first LOU Turnaround that occurs after the Date of Entry ("Applicable Review Period"). The list shall include, at a minimum, the Screening Value recorded; the number of times the valve had a Screening Value equal to or greater than 250

ppm over the course of all monitoring events that took place during the Applicable Review Period; the size of the valve; and the service of the valve. For purposes of replacing and/or repacking valves on this list, FHR shall prioritize the list to the extent practical evaluating the following factors: (1) the number of times the valve leaked at or above 250 ppm (the higher the number, the higher the priority); (2) the level of the Screening Value (the higher the Screening Value, the higher the priority); (3) the size of the valve (the bigger the valve, the higher the priority); (4) the toxicity of the pollutant(s) emitted (the more toxic, the higher the priority); and (5) the potential availability of Low E technology for the valve in question (the greater the likelihood of availability, the higher the priority). Once prioritized, this list shall be called the "Priority List."

Motiva Chemicals has a process whereby valves with a screening value equal to or greater than 250 ppm are replaced, repacked, or placed on a Turnaround list for the applicable Covered Process Unit. See Table C-1.2 below for a summary of these valves. Additionally, Motiva Chemicals will prioritize the Turnaround list, to the extent practical by evaluating the factors as described above to create the "Priority List" for the next Turnaround subject to this Subparagraph. During this Reporting Period, Motiva Chemicals conducted the first LOU Turnaround after the Date of Entry, and the "Priority List" was developed no later than ninety days prior to the beginning of the LOU Turnaround.

(b) Replacements or Repackings during the First Turnaround after the Date of Entry. During the first LOU Turnaround after the Date of Entry, FHR shall first replace or repack valves on the Facility's DOR list and valves that were drilled and tapped. After completing these replacements or repackings, FHR shall replace or repack, in the order of priority, the valves on the Priority List. Except as provided in Paragraph 65, FHR shall utilize Low E Valves or Low E Packing for all valves replaced or repacked during this Turnaround. FHR shall replace or repack no less than 800 valves during this Turnaround. FHR shall further pre-plan for the replacement of an additional 100 valves. If the duration of the Turnaround so allows, FHR shall use best efforts

to continue to replace or repack some or all of the pre-planned valves until the completion of the Turnaround activities.

Motiva Chemicals completed the replacement or repacking of valves with Low-E valves or Low-E packing, per 64.B.ii(2)(b), during the first LOU Turnaround after the date of entry.

iii. <u>OSBL.</u>
Except as provided in Paragraph 65, for each Existing Valve in OSBL Equipment that has a Screening Value at or above 250 ppm during any monitoring event, FHR shall replace or repack the Existing Valve with a Low E Valve or with Low-E Packing by no later than: (1) 30 days after the monitoring event that triggers the replacement or repacking requirement; (2) if the valve is removed from service within 30 days after the monitoring event that triggers the replacement or repacking, the date the valve is returned to service; or (3) if replacement or repacking cannot be undertaken pursuant to (1) or is not undertaken pursuant to (2), by no later than the first Turnaround after the triggering monitoring event. Valves identified with a Screening Value equal to or greater than 250 ppm during the time period that is ninety (90) days prior to the Turnaround shall be excluded from the requirement in (3). However, these valves shall be replaced or repacked during the subsequent Covered Process Unit Turnaround, if such a Turnaround occurs during the pendency of this Consent Decree.

Motiva Chemicals has a process whereby valves with a screening value equal to or greater than 250 ppm are replaced, repacked, or placed on a Turnaround list for the applicable Covered Process Unit within the time periods as defined in Subparagraph 64.b.i. See Table C-1.2 below for a summary of these valves.

c. Repair Requirements Pending Replacements or Repackings pursuant to Subparagraph 64.b.

i. <u>Subsection V.E (Repairs) Requirements.</u>
For each Existing Valve that has a Screening Value at or above 250 ppm, FHR shall not be required to comply with Subsection V.E (Repair) pending replacement or repacking pursuant to Subparagraph 64.b if FHR completes the replacement or repacking within 30 days of detecting the leak, or if the Existing Valve is on the Delay of Repair list. If FHR does not complete the replacement or repacking within 30 days, FHR shall comply with all applicable requirements of Subsection V.E (Repair).

Motiva Chemicals has a process whereby valves with a screening value equal to or greater than 250 ppm are replaced or repacked within 30 days. If the valve cannot be isolated, it will be placed on the Turnaround list.

ii. Requirements of Applicable Regulations.
For each Existing Valve that has a Screening Value at or above 500 ppm, FHR shall comply with all repair and "delay of repair" requirements of any applicable regulation pending replacement or repacking pursuant to Subparagraph 64.b.

Motiva Chemicals will continue to comply with the requirements for valves with a screening value equal to or greater than 500 ppm. These valves are repaired and/or "delay of repair" requirements are followed.

d. Number of Turnarounds Required. FHR shall comply with the requirements of this Paragraph 64 for the following number of Turnarounds for the following Covered Process Units:

Covered Process Unit	***No. of Turnarounds***
LOU and associated OSBL Equipment	***1***
GHU and associated OSBL Equipment	***1***
PHU and associated OSBL Equipment	***1***
UDEX and associated OSBL Equipment	***2***
Cyclohexane and associated OSBL Equipment	***2***

During this Reporting Period, no Turnarounds were performed that would have required the priority list to be developed.

The UDEX was permanently shutdown by June 30, 2015. The PHU was shutdown by March 31, 2016. Therefore, the turnaround requirements of this section are no longer applicable.

During this Reporting Period, the one remaining Turnaround for the LOU and associated OSBL Equipment was performed, and the applicable valves on the Turnaround list were replaced or repacked with Low-E Valves or Low-E Packing as required by Subparagraph 64.b.ii of this CD. See Table C-1.2 below for a summary of these valves.

Based on activities performed the remaining number of Turnaround subject to Paragraph 64 for each Covered Process Units are as follows:

Covered Process Unit	No. of Turnarounds
LOU and associated OSBL Equipment	0
GHU and associated OSBL Equipment	0
PHU and associated OSBL Equipment	0
UDEX and associated OSBL Equipment	0
Cyclohexane and associated OSBL Equipment	1

Table C-1.2 Replacing or Repacking Valves

	Valves ≥250 ppm During this Reporting Period	Placed on Turnaround List	Repacked or Replaced	Turnaround Performed Valve Replacement
LOU	111	74	37	1453
OSBL and Cover Process Unit other than LOU	40	37	3	220

For details of the identifying tag number, screening values (in ppm), type of actions, and dates involved for valves referenced in Table C-1.2, see Appendix C-5.

65. ***Commercial Unavailability of a Low-E Valve or Low-E Packing. FHR shall not be required to utilize a Low-E Valve or Low-E Packing to replace or repack a valve if a Low-E Valve or Low-E Packing is commercially unavailable for the service and operating conditions of the valve. Factors and procedures for asserting commercial unavailability are set forth in Appendix 3.1. If FHR exercises the Commercial Unavailability exemption under this Paragraph for any valve, FHR shall:***
a. Include the following in the applicable compliance status report required under Section VIII: (1) all documentation required by Section II.3 of Appendix 3.1; and (2) identify the commercially available valve or packing technology that comes closest to meeting the requirements for a Low-E Valve or Low-E Packing.

During this Reporting Period, no non-Low-E valves or non-Low-E Packing were utilized relying upon the commercial unavailability exemption as described in Appendix 3.1 of the CD.

66. ***Provisions Related to Low-E Valves and Low-E Packing.***

a. "Low-E" Status Not Affected By Subsequent Leaks. If, during any monitoring after installation, a Low-E Valve or valve using Low-E Packing has a Screening Value at or above 250 ppm, the leak is not a violation of this Decree, does not invalidate the "Low-E" status or use of that type of valve or packing technology, and does not require replacing other, non-leaking valves or packing technology of the same type. b. Replacing or Repacking. The first time a Low-E Valve or a valve using Low-E Packing has a Screening Value at or above 250 ppm, FHR shall not be required to replace or repack it if FHR timely repairs the valve and reduces the Screening Value to below 250 ppm. If the Low-E Valve or a valve using Low-E Packing either cannot be repaired to below 250 ppm or if the valve subsequently has a Screening Value at or above 250 ppm, FHR shall replace or repack it pursuant to the requirements of Paragraph 64.

During this Reporting Period, leaks were documented from Low-E valves and Low-E Packing. Table C-1.3 presents any newly installed Low-E valves or new Low-E valve packing leaking for the first time at a screening value at or above 250 ppm giving an allowance of having a first repair prior to having a requirement to replace per Paragraph 64. See Table C-1.3 below for a summary of newly installed Low-E valves and Low-E packing that leaked for the first time, including those that were successfully repaired during this reporting period. (See Appendix C-5 for additional details.)

Table C-1.3 Low-E Valves and Low-E Packing Leaks

Low-E Valve or Packing that leaked during this reporting period	Successful First Repair of Low-E Valve/Packing	Low-E Valves/Packing which require FHR to follow Paragraph 64
35	35	0

67. ***Records of Low-E Valves and Low-E Packing.***
Prior to installing any Low-E Valves or Low-E Packing, or if not possible before installation, then as soon as possible thereafter, FHR shall secure from each manufacturer documentation that demonstrates that the proposed valve or packing technology meets the definition of "Low-E Valve" and/or "Low-E Packing." FHR shall retain that documentation for the duration of this Consent Decree and make it available upon request.

Motiva Chemicals has a process to secure documentation from each manufacturer of Low-E valves and/or Low-E packing that demonstrates that the valve or packing technology meets the specified Low-E requirements. This documentation is appropriately retained.

68. ***Connector Replacement and Improvement Descriptions.***

a. For each of the following types of connectors, the following type of replacement or improvement shall apply:

Connector Type	***Replacement or Improvement Description***
Flanged	***Replacement or Improvement of the gasket or installation of tension washers***
Threaded	***Replacement of the connector with a like kind connector or other***
Compression	***Replacement of the connector with a like kind connector or other***
CamLock	***Replacement or improvement of the gasket or replacement or improvement of the CamLock***
Quick Connect	***Replacement or improvement of the gasket, if applicable, or replacement of the connector (with either a like kind connector or other), if there is no gasket***
Any type	***Elimination (e.g., through welding, pipe (including any of the above) replacement, etc.)***

During this Reporting Period, Motiva Chemicals followed replacement or improvement of all the connector types listed above.

b. In cases where replacement in kind is utilized as the method for replacing or improving a connector (e.g., a Quick Connect replaces another Quick Connect), the provisions of Subparagraphs 68.b.i and 68.b.ii shall apply. i. If there are types, models or styles of a like-kind connector that are less likely to leak than the existing connector, and one or more of those types, models or styles are technically feasible to use (considering the service, operating conditions, and type of piping or tubing that the connector is in) and would not create a major safety, mechanical, product quality, regulatory or other issue, FHR shall select a like-kind connector from among such types, models or styles.
ii. If Subparagraph 68.b.i does not apply, FHR may install a like-kind connector that is the same type, model or style as the existing connector.

Motiva Chemicals has a process to replace the connector with the same type, model, or style as the existing connector. If the existing connector type, model, or style is not available, then Motiva Chemicals' practice is to select a replacement which is less likely to leak than the existing connector.

69. ***Installing New or Like-Kind Connectors.***
When installing any new or replacement connector in a Covered Process Unit, FHR shall use best efforts to select a connector that is least likely to leak, using good engineering judgment, for the service, operating conditions, and type of piping or tubing that the connector is in.

During the Reporting Period, if the existing connector type, model, or style was not available, Motiva Chemicals' practice was to select a replacement which was less likely to leak than the existing connector.

70. ***<u>Replacing or Improving Connectors.</u>***

a. Replacing or Improving Requirements. For each existing connector that, in any (2) times out of three (3) consecutive monitoring periods after the Date of Entry, has a Screening Value at or above 250 ppm, FHR shall replace or improve the connector in accordance with the applicable replacement or improvement described in Paragraph 68. FHR shall use best efforts to install a replacement or improvement that will be the least likely to leak, using good engineering judgment, for the service, operating conditions, and type of piping or tubing that the connector is in. FHR shall undertake the replacement or improvement within: (i) 30 days after the monitoring event that triggers the replacement or improvement requirement; or (ii) if the replacement or improvement cannot be done within 30 days, FHR shall undertake the replacement or improvement during the first Turnaround that follows the triggering monitoring event. The requirements of this Subparagraph are in addition to, and not in lieu of, Delay of Repair requirements in applicable LDAR regulations and in this ELP. Nothing in this Subparagraph is intended to modify or revise Delay of Repair requirements.

See Table C.1-4 below for a summary of connectors that had screening values at or above 250 ppm for two out of three consecutive monitoring periods. The table also identifies the connectors that have been repaired, replaced, or placed on the next Turnaround list (See Appendix C-5 for additional details.)

Table C.1-4 Replacing or Improving Connectors

Connectors with Screening Values =/> 250 for 2 out of 3 Consecutive Monitoring Periods	Number of Connectors Repaired or Replaced	Number of Connectors Placed on Next Turnaround List
14	14	0

b. Repair Requirements Pending Replacements or Improvements Pursuant to Subparagraph 70.a.

i. Subsection V.E (Repairs) Requirements. For each connector that has a Screening Valve at or above 250 ppm, FHR shall not be required to comply with Subsection V.E (Repairs) pending replacement or improvement pursuant to Subparagraph 70.a if

FHR completes the replacement or improvement within 30 days of detecting the leak. If FHR does not complete the replacement or improvement within 30 days, or if, at the time of the leak detection, FHR reasonably can anticipate that it might not be able to complete the replacement or improvement within 30 days, FHR shall comply with all applicable requirements of Subsection V.E (Repairs).

During this Reporting Period, Motiva Chemicals performed repair attempts per Subsection V.E and connectors that did not meet the replacement or improvement requirements were placed on the next Turnaround list.

ii. Requirements of Applicable Regulations. For each connector that has a Screening Value at or above 500 ppm, FHR shall comply with all repair and DOR requirements of any applicable regulation pending replacement or improvement pursuant to Subparagraph 70.a.

During this Reporting Period, Motiva Chemicals complied with the repair and DOR requirements of applicable regulations.

APPENDIX C-5: Valve and Connector Replacement/Improvement Report

Appendix C-5.1: Paragraph 61 Pro-Active Tightening

61. Pro-Active Valve Tightening Work Practices Relating to each New Valve that is Installed and Each Exisiting Valve that is Repacked

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
203376	Repacked	COMPLETED	1/12/2022	YES	N/A
533493	Repacked	COMPLETED	1/12/2022	YES	N/A
751032	Repacked	COMPLETED	1/12/2022	YES	N/A
203375	Repacked	COMPLETED	1/13/2022	YES	N/A
703456	New Install	COMPLETED	1/26/2022	YES	N/A
203905	New Install	COMPLETED	2/10/2022	YES	N/A
301539	New Install	COMPLETED	3/10/2022	YES	N/A
301566	New Install	COMPLETED	3/10/2022	YES	N/A
316274	New Install	COMPLETED	3/10/2022	YES	N/A
316276	Repacked	COMPLETED	3/10/2022	YES	N/A
316277	New Install	COMPLETED	3/10/2022	YES	N/A
520489	New Install	COMPLETED	3/10/2022	YES	N/A
520586	Repacked	COMPLETED	3/10/2022	YES	N/A
520898	Repacked	COMPLETED	3/10/2022	YES	N/A
704245	Repacked	COMPLETED	3/10/2022	YES	N/A
200111	Repacked	COMPLETED	3/11/2022	YES	N/A
200151	Repacked	COMPLETED	3/11/2022	YES	N/A
203024	Repacked	COMPLETED	3/11/2022	YES	N/A
203890	Repacked	COMPLETED	3/11/2022	YES	N/A
316275	New Install	COMPLETED	3/11/2022	YES	N/A
401601	New Install	COMPLETED	3/13/2022	YES	N/A
401602	New Install	COMPLETED	3/13/2022	YES	N/A
401603	New Install	COMPLETED	3/13/2022	YES	N/A
401604	New Install	COMPLETED	3/13/2022	YES	N/A
705557	New Install	COMPLETED	3/13/2022	YES	N/A
705558	New Install	COMPLETED	3/13/2022	YES	N/A
L-1005	New Install	COMPLETED	3/13/2022	YES	N/A
204376	New Install	COMPLETED	3/17/2022	YES	N/A
G-0882	New Install	COMPLETED	3/17/2022	YES	N/A
G-0883	New Install	COMPLETED	3/17/2022	YES	N/A
G-0895	New Install	COMPLETED	3/17/2022	YES	N/A
201351	New Install	COMPLETED	3/18/2022	YES	N/A
203138	New Install	COMPLETED	3/18/2022	YES	N/A
204208	Repacked	COMPLETED	3/18/2022	YES	N/A
309503	Repacked	COMPLETED	3/18/2022	YES	N/A
309849	New Install	COMPLETED	3/18/2022	YES	N/A
505727	Repacked	COMPLETED	3/18/2022	YES	N/A
505729	Repacked	COMPLETED	3/18/2022	YES	N/A
505730	Repacked	COMPLETED	3/18/2022	YES	N/A
916804	Repacked	COMPLETED	3/18/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
917512	New Install	COMPLETED	3/18/2022	YES	N/A
G-0725	New Install	COMPLETED	3/18/2022	YES	N/A
G-0726	New Install	COMPLETED	3/18/2022	YES	N/A
G-0836	New Install	COMPLETED	3/18/2022	YES	N/A
G-12817	New Install	COMPLETED	3/18/2022	YES	N/A
203696	New Install	COMPLETED	3/19/2022	YES	N/A
204355	Repacked	COMPLETED	3/19/2022	YES	N/A
300243	Repacked	COMPLETED	3/19/2022	YES	N/A
300561	New Install	COMPLETED	3/19/2022	YES	N/A
301893	New Install	COMPLETED	3/19/2022	YES	N/A
306622	Repacked	COMPLETED	3/19/2022	YES	N/A
504958	New Install	COMPLETED	3/19/2022	YES	N/A
703666	Repacked	COMPLETED	3/19/2022	YES	N/A
916785	Repacked	COMPLETED	3/19/2022	YES	N/A
918240	Repacked	COMPLETED	3/19/2022	YES	N/A
918245	Repacked	COMPLETED	3/19/2022	YES	N/A
929301	New Install	COMPLETED	3/19/2022	YES	N/A
G-1200	Repacked	COMPLETED	3/19/2022	YES	N/A
G-1217	Repacked	COMPLETED	3/19/2022	YES	N/A
G-1222	Repacked	COMPLETED	3/19/2022	YES	N/A
G-12701	New Install	COMPLETED	3/19/2022	YES	N/A
203765	Repacked	COMPLETED	3/20/2022	YES	N/A
203914	Repacked	COMPLETED	3/20/2022	YES	N/A
203968	Repacked	COMPLETED	3/20/2022	YES	N/A
309396	Repacked	COMPLETED	3/20/2022	YES	N/A
401389	Repacked	COMPLETED	3/20/2022	YES	N/A
602163	New Install	COMPLETED	3/20/2022	YES	N/A
704390	New Install	COMPLETED	3/20/2022	YES	N/A
834805	Repacked	COMPLETED	3/20/2022	YES	N/A
834816	Repacked	COMPLETED	3/20/2022	YES	N/A
918218	Repacked	COMPLETED	3/20/2022	YES	N/A
E-11866	New Install	COMPLETED	3/20/2022	YES	N/A
F-12004	New Install	COMPLETED	3/20/2022	YES	N/A
G-0709C	New Install	COMPLETED	3/20/2022	YES	N/A
G-1073	Repacked	COMPLETED	3/20/2022	YES	N/A
G-1074	Repacked	COMPLETED	3/20/2022	YES	N/A
L-1194	New Install	COMPLETED	3/20/2022	YES	N/A
P-0160	New Install	COMPLETED	3/20/2022	YES	N/A
200509	Repacked	COMPLETED	3/21/2022	YES	N/A
203379	Repacked	COMPLETED	3/21/2022	YES	N/A
203395	Repacked	COMPLETED	3/21/2022	YES	N/A
203399	Repacked	COMPLETED	3/21/2022	YES	N/A
203777	New Install	COMPLETED	3/21/2022	YES	N/A
203990	Repacked	COMPLETED	3/21/2022	YES	N/A
203991	Repacked	COMPLETED	3/21/2022	YES	N/A
204278	Repacked	COMPLETED	3/21/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
204760	Repacked	COMPLETED	3/21/2022	YES	N/A
204891	Repacked	COMPLETED	3/21/2022	YES	N/A
204900	Repacked	COMPLETED	3/21/2022	YES	N/A
204973	Repacked	COMPLETED	3/21/2022	YES	N/A
305245	New Install	COMPLETED	3/21/2022	YES	N/A
306528	Repacked	COMPLETED	3/21/2022	YES	N/A
307711	Repacked	COMPLETED	3/21/2022	YES	N/A
307713	Repacked	COMPLETED	3/21/2022	YES	N/A
310167	New Install	COMPLETED	3/21/2022	YES	N/A
310168	New Install	COMPLETED	3/21/2022	YES	N/A
315873	New Install	COMPLETED	3/21/2022	YES	N/A
319334	New Install	COMPLETED	3/21/2022	YES	N/A
401535	Repacked	COMPLETED	3/21/2022	YES	N/A
401624	New Install	COMPLETED	3/21/2022	YES	N/A
502736	New Install	COMPLETED	3/21/2022	YES	N/A
508390	Repacked	COMPLETED	3/21/2022	YES	N/A
600823	New Install	COMPLETED	3/21/2022	YES	N/A
704543	New Install	COMPLETED	3/21/2022	YES	N/A
834801	Repacked	COMPLETED	3/21/2022	YES	N/A
834806	Repacked	COMPLETED	3/21/2022	YES	N/A
836767	New Install	COMPLETED	3/21/2022	YES	N/A
913263	Repacked	COMPLETED	3/21/2022	YES	N/A
917224	New Install	COMPLETED	3/21/2022	YES	N/A
927481	New Install	COMPLETED	3/21/2022	YES	N/A
B-0538	Repacked	COMPLETED	3/21/2022	YES	N/A
B-0780	Repacked	COMPLETED	3/21/2022	YES	N/A
B-2737	Repacked	COMPLETED	3/21/2022	YES	N/A
G-0811	Repacked	COMPLETED	3/21/2022	YES	N/A
G-0942	New Install	COMPLETED	3/21/2022	YES	N/A
G-0947	New Install	COMPLETED	3/21/2022	YES	N/A
G-0950	New Install	COMPLETED	3/21/2022	YES	N/A
K-1193	New Install	COMPLETED	3/21/2022	YES	N/A
L-0246	New Install	COMPLETED	3/21/2022	YES	N/A
L-0262	New Install	COMPLETED	3/21/2022	YES	N/A
L-0263	New Install	COMPLETED	3/21/2022	YES	N/A
L-0269	New Install	COMPLETED	3/21/2022	YES	N/A
L-13094	Repacked	COMPLETED	3/21/2022	YES	N/A
P-0372	Repacked	COMPLETED	3/21/2022	YES	N/A
P-0414	Repacked	COMPLETED	3/21/2022	YES	N/A
P-1262	New Install	COMPLETED	3/21/2022	YES	N/A
201460	New Install	COMPLETED	3/22/2022	YES	N/A
201973	New Install	COMPLETED	3/22/2022	YES	N/A
201981	New Install	COMPLETED	3/22/2022	YES	N/A
201984	New Install	COMPLETED	3/22/2022	YES	N/A
201990	New Install	COMPLETED	3/22/2022	YES	N/A
201992	New Install	COMPLETED	3/22/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
203311	New Install	COMPLETED	3/22/2022	YES	N/A
203350	New Install	COMPLETED	3/22/2022	YES	N/A
203394	New Install	COMPLETED	3/22/2022	YES	N/A
203397	New Install	COMPLETED	3/22/2022	YES	N/A
203613	New Install	COMPLETED	3/22/2022	YES	N/A
300616	Repacked	COMPLETED	3/22/2022	YES	N/A
301526	Repacked	COMPLETED	3/22/2022	YES	N/A
308516	Repacked	COMPLETED	3/22/2022	YES	N/A
316231	New Install	COMPLETED	3/22/2022	YES	N/A
319424	New Install	COMPLETED	3/22/2022	YES	N/A
400960	Repacked	COMPLETED	3/22/2022	YES	N/A
500874	New Install	COMPLETED	3/22/2022	YES	N/A
501726	New Install	COMPLETED	3/22/2022	YES	N/A
503840	New Install	COMPLETED	3/22/2022	YES	N/A
532552	Repacked	COMPLETED	3/22/2022	YES	N/A
532968	New Install	COMPLETED	3/22/2022	YES	N/A
533673	New Install	COMPLETED	3/22/2022	YES	N/A
600758	Repacked	COMPLETED	3/22/2022	YES	N/A
603096	New Install	COMPLETED	3/22/2022	YES	N/A
604201	Repacked	COMPLETED	3/22/2022	YES	N/A
750090	New Install	COMPLETED	3/22/2022	YES	N/A
833050	New Install	COMPLETED	3/22/2022	YES	N/A
833543	Repacked	COMPLETED	3/22/2022	YES	N/A
914026	New Install	COMPLETED	3/22/2022	YES	N/A
917890	Repacked	COMPLETED	3/22/2022	YES	N/A
918179	New Install	COMPLETED	3/22/2022	YES	N/A
918268	New Install	COMPLETED	3/22/2022	YES	N/A
918877	Repacked	COMPLETED	3/22/2022	YES	N/A
921309	New Install	COMPLETED	3/22/2022	YES	N/A
D-0287	New Install	COMPLETED	3/22/2022	YES	N/A
E-0777P	New Install	COMPLETED	3/22/2022	YES	N/A
E-12187	New Install	COMPLETED	3/22/2022	YES	N/A
F-1566	New Install	COMPLETED	3/22/2022	YES	N/A
G-0728G	New Install	COMPLETED	3/22/2022	YES	N/A
L-0088	New Install	COMPLETED	3/22/2022	YES	N/A
L-0089	New Install	COMPLETED	3/22/2022	YES	N/A
202323	New Install	COMPLETED	3/23/2022	YES	N/A
203955	Repacked	COMPLETED	3/23/2022	YES	N/A
204712	Repacked	COMPLETED	3/23/2022	YES	N/A
204937	New Install	COMPLETED	3/23/2022	YES	N/A
304720	New Install	COMPLETED	3/23/2022	YES	N/A
305935	New Install	COMPLETED	3/23/2022	YES	N/A
307826	Repacked	COMPLETED	3/23/2022	YES	N/A
309017	Repacked	COMPLETED	3/23/2022	YES	N/A
309019	Repacked	COMPLETED	3/23/2022	YES	N/A
309315	New Install	COMPLETED	3/23/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
310240	New Install	COMPLETED	3/23/2022	YES	N/A
313477	Repacked	COMPLETED	3/23/2022	YES	N/A
400321	New Install	COMPLETED	3/23/2022	YES	N/A
501880	New Install	COMPLETED	3/23/2022	YES	N/A
502261	New Install	COMPLETED	3/23/2022	YES	N/A
506124	Repacked	COMPLETED	3/23/2022	YES	N/A
507920	Repacked	COMPLETED	3/23/2022	YES	N/A
602006	New Install	COMPLETED	3/23/2022	YES	N/A
832657	New Install	COMPLETED	3/23/2022	YES	N/A
837251	Repacked	COMPLETED	3/23/2022	YES	N/A
916819	New Install	COMPLETED	3/23/2022	YES	N/A
918172	New Install	COMPLETED	3/23/2022	YES	N/A
918342	Repacked	COMPLETED	3/23/2022	YES	N/A
924892	New Install	COMPLETED	3/23/2022	YES	N/A
B-2780	New Install	COMPLETED	3/23/2022	YES	N/A
B-2785	Repacked	COMPLETED	3/23/2022	YES	N/A
B-2805	Repacked	COMPLETED	3/23/2022	YES	N/A
D-0193	Repacked	COMPLETED	3/23/2022	YES	N/A
E-0384	New Install	COMPLETED	3/23/2022	YES	N/A
E-0394	New Install	COMPLETED	3/23/2022	YES	N/A
E-0722	New Install	COMPLETED	3/23/2022	YES	N/A
E-0743	New Install	COMPLETED	3/23/2022	YES	N/A
E-0759	New Install	COMPLETED	3/23/2022	YES	N/A
E-0761	New Install	COMPLETED	3/23/2022	YES	N/A
G-0279	Repacked	COMPLETED	3/23/2022	YES	N/A
G-0472	Repacked	COMPLETED	3/23/2022	YES	N/A
G-0613	Repacked	COMPLETED	3/23/2022	YES	N/A
G-12580	Repacked	COMPLETED	3/23/2022	YES	N/A
G-12792	New Install	COMPLETED	3/23/2022	YES	N/A
L-0272	New Install	COMPLETED	3/23/2022	YES	N/A
202255	New Install	COMPLETED	3/24/2022	YES	N/A
202371	Repacked	COMPLETED	3/24/2022	YES	N/A
202763	Repacked	COMPLETED	3/24/2022	YES	N/A
203109	New Install	COMPLETED	3/24/2022	YES	N/A
203374	Repacked	COMPLETED	3/24/2022	YES	N/A
204706	New Install	COMPLETED	3/24/2022	YES	N/A
300434	New Install	COMPLETED	3/24/2022	YES	N/A
300435	New Install	COMPLETED	3/24/2022	YES	N/A
301287	New Install	COMPLETED	3/24/2022	YES	N/A
305406	Repacked	COMPLETED	3/24/2022	YES	N/A
305425	New Install	COMPLETED	3/24/2022	YES	N/A
308387	New Install	COMPLETED	3/24/2022	YES	N/A
309974	New Install	COMPLETED	3/24/2022	YES	N/A
315041	Repacked	COMPLETED	3/24/2022	YES	N/A
318178	New Install	COMPLETED	3/24/2022	YES	N/A
400108	Repacked	COMPLETED	3/24/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
400263	New Install	COMPLETED	3/24/2022	YES	N/A
400439	New Install	COMPLETED	3/24/2022	YES	N/A
503694	New Install	COMPLETED	3/24/2022	YES	N/A
505415	Repacked	COMPLETED	3/24/2022	YES	N/A
505419	Repacked	COMPLETED	3/24/2022	YES	N/A
506112	Repacked	COMPLETED	3/24/2022	YES	N/A
507626	New Install	COMPLETED	3/24/2022	YES	N/A
508136	New Install	COMPLETED	3/24/2022	YES	N/A
533452	New Install	COMPLETED	3/24/2022	YES	N/A
533464	New Install	COMPLETED	3/24/2022	YES	N/A
600828	New Install	COMPLETED	3/24/2022	YES	N/A
704032	Repacked	COMPLETED	3/24/2022	YES	N/A
704411	Repacked	COMPLETED	3/24/2022	YES	N/A
750444	New Install	COMPLETED	3/24/2022	YES	N/A
750445	New Install	COMPLETED	3/24/2022	YES	N/A
750451	New Install	COMPLETED	3/24/2022	YES	N/A
750969	Repacked	COMPLETED	3/24/2022	YES	N/A
900823	Repacked	COMPLETED	3/24/2022	YES	N/A
913339	New Install	COMPLETED	3/24/2022	YES	N/A
919138	New Install	COMPLETED	3/24/2022	YES	N/A
919147	New Install	COMPLETED	3/24/2022	YES	N/A
919316	New Install	COMPLETED	3/24/2022	YES	N/A
920150	New Install	COMPLETED	3/24/2022	YES	N/A
925068	New Install	COMPLETED	3/24/2022	YES	N/A
926108	New Install	COMPLETED	3/24/2022	YES	N/A
B-16407	New Install	COMPLETED	3/24/2022	YES	N/A
B-16683	New Install	COMPLETED	3/24/2022	YES	N/A
C-0027	New Install	COMPLETED	3/24/2022	YES	N/A
C-13333	New Install	COMPLETED	3/24/2022	YES	N/A
C-13337	New Install	COMPLETED	3/24/2022	YES	N/A
D-0340	New Install	COMPLETED	3/24/2022	YES	N/A
G-0368	Repacked	COMPLETED	3/24/2022	YES	N/A
G-0370	Repacked	COMPLETED	3/24/2022	YES	N/A
G-0665	Repacked	COMPLETED	3/24/2022	YES	N/A
G-0819	Repacked	COMPLETED	3/24/2022	YES	N/A
G-12551	Repacked	COMPLETED	3/24/2022	YES	N/A
H-0256	New Install	COMPLETED	3/24/2022	YES	N/A
H-0611	New Install	COMPLETED	3/24/2022	YES	N/A
K-0902	New Install	COMPLETED	3/24/2022	YES	N/A
K-0915	New Install	COMPLETED	3/24/2022	YES	N/A
L-0574	Repacked	COMPLETED	3/24/2022	YES	N/A
L-0661	Repacked	COMPLETED	3/24/2022	YES	N/A
P-0250	Repacked	COMPLETED	3/24/2022	YES	N/A
P-0407	Repacked	COMPLETED	3/24/2022	YES	N/A
201845	Repacked	COMPLETED	3/25/2022	YES	N/A
202095	New Install	COMPLETED	3/25/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
203386	Repacked	COMPLETED	3/25/2022	YES	N/A
203748	Repacked	COMPLETED	3/25/2022	YES	N/A
203758	New Install	COMPLETED	3/25/2022	YES	N/A
203836	New Install	COMPLETED	3/25/2022	YES	N/A
203906	Repacked	COMPLETED	3/25/2022	YES	N/A
203981	Repacked	COMPLETED	3/25/2022	YES	N/A
204049	Repacked	COMPLETED	3/25/2022	YES	N/A
204066	Repacked	COMPLETED	3/25/2022	YES	N/A
204272	New Install	COMPLETED	3/25/2022	YES	N/A
204738	New Install	COMPLETED	3/25/2022	YES	N/A
204740	New Install	COMPLETED	3/25/2022	YES	N/A
304693	New Install	COMPLETED	3/25/2022	YES	N/A
305485	Repacked	COMPLETED	3/25/2022	YES	N/A
307725	New Install	COMPLETED	3/25/2022	YES	N/A
308129	Repacked	COMPLETED	3/25/2022	YES	N/A
314760	New Install	COMPLETED	3/25/2022	YES	N/A
315416	Repacked	COMPLETED	3/25/2022	YES	N/A
318154	New Install	COMPLETED	3/25/2022	YES	N/A
401237	New Install	COMPLETED	3/25/2022	YES	N/A
401240	New Install	COMPLETED	3/25/2022	YES	N/A
500572	New Install	COMPLETED	3/25/2022	YES	N/A
502750	New Install	COMPLETED	3/25/2022	YES	N/A
510065	New Install	COMPLETED	3/25/2022	YES	N/A
532924	New Install	COMPLETED	3/25/2022	YES	N/A
602901	New Install	COMPLETED	3/25/2022	YES	N/A
703140	New Install	COMPLETED	3/25/2022	YES	N/A
704879	New Install	COMPLETED	3/25/2022	YES	N/A
750543	New Install	COMPLETED	3/25/2022	YES	N/A
751394	New Install	COMPLETED	3/25/2022	YES	N/A
836783	Repacked	COMPLETED	3/25/2022	YES	N/A
920578	New Install	COMPLETED	3/25/2022	YES	N/A
D-0256	New Install	COMPLETED	3/25/2022	YES	N/A
F-0603	New Install	COMPLETED	3/25/2022	YES	N/A
G-0433	New Install	COMPLETED	3/25/2022	YES	N/A
G-0735	New Install	COMPLETED	3/25/2022	YES	N/A
H-0559	New Install	COMPLETED	3/25/2022	YES	N/A
J-12903	New Install	COMPLETED	3/25/2022	YES	N/A
K-1160	Repacked	COMPLETED	3/25/2022	YES	N/A
K-13058	Repacked	COMPLETED	3/25/2022	YES	N/A
K-1504	Repacked	COMPLETED	3/25/2022	YES	N/A
K-2584	Repacked	COMPLETED	3/25/2022	YES	N/A
L-0524	Repacked	COMPLETED	3/25/2022	YES	N/A
P-0465	New Install	COMPLETED	3/25/2022	YES	N/A
P-0494	New Install	COMPLETED	3/25/2022	YES	N/A
P-0495	New Install	COMPLETED	3/25/2022	YES	N/A
P-0500	New Install	COMPLETED	3/25/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
P-0501	New Install	COMPLETED	3/25/2022	YES	N/A
203104	New Install	COMPLETED	3/26/2022	YES	N/A
203599	New Install	COMPLETED	3/26/2022	YES	N/A
203605	Repacked	COMPLETED	3/26/2022	YES	N/A
204941	New Install	COMPLETED	3/26/2022	YES	N/A
300081	Repacked	COMPLETED	3/26/2022	YES	N/A
301372	New Install	COMPLETED	3/26/2022	YES	N/A
301517	Repacked	COMPLETED	3/26/2022	YES	N/A
305561	New Install	COMPLETED	3/26/2022	YES	N/A
308376	New Install	COMPLETED	3/26/2022	YES	N/A
308636	New Install	COMPLETED	3/26/2022	YES	N/A
500722	New Install	COMPLETED	3/26/2022	YES	N/A
505741	Repacked	COMPLETED	3/26/2022	YES	N/A
506181	Repacked	COMPLETED	3/26/2022	YES	N/A
600081	New Install	COMPLETED	3/26/2022	YES	N/A
600083	New Install	COMPLETED	3/26/2022	YES	N/A
600089	New Install	COMPLETED	3/26/2022	YES	N/A
600093	New Install	COMPLETED	3/26/2022	YES	N/A
600095	New Install	COMPLETED	3/26/2022	YES	N/A
600098	New Install	COMPLETED	3/26/2022	YES	N/A
600160	New Install	COMPLETED	3/26/2022	YES	N/A
600161	New Install	COMPLETED	3/26/2022	YES	N/A
704884	New Install	COMPLETED	3/26/2022	YES	N/A
920961	New Install	COMPLETED	3/26/2022	YES	N/A
B-1157	New Install	COMPLETED	3/26/2022	YES	N/A
B-2757	New Install	COMPLETED	3/26/2022	YES	N/A
G-0225	New Install	COMPLETED	3/26/2022	YES	N/A
G-0226	New Install	COMPLETED	3/26/2022	YES	N/A
G-0727A	New Install	COMPLETED	3/26/2022	YES	N/A
G-0728A	New Install	COMPLETED	3/26/2022	YES	N/A
G-0730A	New Install	COMPLETED	3/26/2022	YES	N/A
H-0425	Repacked	COMPLETED	3/26/2022	YES	N/A
H-0441	Repacked	COMPLETED	3/26/2022	YES	N/A
H-0586	New Install	COMPLETED	3/26/2022	YES	N/A
H-0612	Repacked	COMPLETED	3/26/2022	YES	N/A
J-2004	New Install	COMPLETED	3/26/2022	YES	N/A
J-2009	New Install	COMPLETED	3/26/2022	YES	N/A
J-2068	New Install	COMPLETED	3/26/2022	YES	N/A
J-2072	New Install	COMPLETED	3/26/2022	YES	N/A
K-0935	Repacked	COMPLETED	3/26/2022	YES	N/A
K-0971	New Install	COMPLETED	3/26/2022	YES	N/A
K-0981	New Install	COMPLETED	3/26/2022	YES	N/A
K-1123	New Install	COMPLETED	3/26/2022	YES	N/A
L-0079	Repacked	COMPLETED	3/26/2022	YES	N/A
L-0162	Repacked	COMPLETED	3/26/2022	YES	N/A
L-0184	New Install	COMPLETED	3/26/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
L-0185	New Install	COMPLETED	3/26/2022	YES	N/A
L-0186	New Install	COMPLETED	3/26/2022	YES	N/A
L-0187	New Install	COMPLETED	3/26/2022	YES	N/A
L-0192	New Install	COMPLETED	3/26/2022	YES	N/A
L-0196	New Install	COMPLETED	3/26/2022	YES	N/A
L-0201	Repacked	COMPLETED	3/26/2022	YES	N/A
L-0237	New Install	COMPLETED	3/26/2022	YES	N/A
203541	New Install	COMPLETED	3/27/2022	YES	N/A
203648	Repacked	COMPLETED	3/27/2022	YES	N/A
203734	New Install	COMPLETED	3/27/2022	YES	N/A
204229	Repacked	COMPLETED	3/27/2022	YES	N/A
204992	Repacked	COMPLETED	3/27/2022	YES	N/A
301929	New Install	COMPLETED	3/27/2022	YES	N/A
301932	New Install	COMPLETED	3/27/2022	YES	N/A
304747	Repacked	COMPLETED	3/27/2022	YES	N/A
306502	Repacked	COMPLETED	3/27/2022	YES	N/A
307796	Repacked	COMPLETED	3/27/2022	YES	N/A
308986	Repacked	COMPLETED	3/27/2022	YES	N/A
309794	New Install	COMPLETED	3/27/2022	YES	N/A
310259	New Install	COMPLETED	3/27/2022	YES	N/A
310561	Repacked	COMPLETED	3/27/2022	YES	N/A
315775	Repacked	COMPLETED	3/27/2022	YES	N/A
316225	Repacked	COMPLETED	3/27/2022	YES	N/A
319440	Repacked	COMPLETED	3/27/2022	YES	N/A
319807	New Install	COMPLETED	3/27/2022	YES	N/A
319810	New Install	COMPLETED	3/27/2022	YES	N/A
400063	Repacked	COMPLETED	3/27/2022	YES	N/A
501506	New Install	COMPLETED	3/27/2022	YES	N/A
504822	Repacked	COMPLETED	3/27/2022	YES	N/A
603412	New Install	COMPLETED	3/27/2022	YES	N/A
702975	New Install	COMPLETED	3/27/2022	YES	N/A
705204	Repacked	COMPLETED	3/27/2022	YES	N/A
900348	New Install	COMPLETED	3/27/2022	YES	N/A
911868	New Install	COMPLETED	3/27/2022	YES	N/A
916826	Repacked	COMPLETED	3/27/2022	YES	N/A
920433	Repacked	COMPLETED	3/27/2022	YES	N/A
F-0019	New Install	COMPLETED	3/27/2022	YES	N/A
G-1207	New Install	COMPLETED	3/27/2022	YES	N/A
H-0058	New Install	COMPLETED	3/27/2022	YES	N/A
H-0164	New Install	COMPLETED	3/27/2022	YES	N/A
H-0173	New Install	COMPLETED	3/27/2022	YES	N/A
H-0240	Repacked	COMPLETED	3/27/2022	YES	N/A
H-0316	New Install	COMPLETED	3/27/2022	YES	N/A
H-0324	New Install	COMPLETED	3/27/2022	YES	N/A
H-0332	New Install	COMPLETED	3/27/2022	YES	N/A
H-12888	New Install	COMPLETED	3/27/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
J-1951	Repacked	COMPLETED	3/27/2022	YES	N/A
K-0240	Repacked	COMPLETED	3/27/2022	YES	N/A
K-0382	Repacked	COMPLETED	3/27/2022	YES	N/A
K-0684	New Install	COMPLETED	3/27/2022	YES	N/A
K-0710	New Install	COMPLETED	3/27/2022	YES	N/A
K-0716	New Install	COMPLETED	3/27/2022	YES	N/A
K-1040	Repacked	COMPLETED	3/27/2022	YES	N/A
M-0003	New Install	COMPLETED	3/27/2022	YES	N/A
M-0490	New Install	COMPLETED	3/27/2022	YES	N/A
M-0492	Repacked	COMPLETED	3/27/2022	YES	N/A
P-0079	New Install	COMPLETED	3/27/2022	YES	N/A
10268	New Install	COMPLETED	3/28/2022	YES	N/A
10280	New Install	COMPLETED	3/28/2022	YES	N/A
10294	New Install	COMPLETED	3/28/2022	YES	N/A
10299	New Install	COMPLETED	3/28/2022	YES	N/A
202081	New Install	COMPLETED	3/28/2022	YES	N/A
202082	New Install	COMPLETED	3/28/2022	YES	N/A
202639	Repacked	COMPLETED	3/28/2022	YES	N/A
203503	New Install	COMPLETED	3/28/2022	YES	N/A
203607	Repacked	COMPLETED	3/28/2022	YES	N/A
203838	New Install	COMPLETED	3/28/2022	YES	N/A
204714	Repacked	COMPLETED	3/28/2022	YES	N/A
301582	New Install	COMPLETED	3/28/2022	YES	N/A
307945	Repacked	COMPLETED	3/28/2022	YES	N/A
308128	Repacked	COMPLETED	3/28/2022	YES	N/A
309509	Repacked	COMPLETED	3/28/2022	YES	N/A
313233	New Install	COMPLETED	3/28/2022	YES	N/A
319769	New Install	COMPLETED	3/28/2022	YES	N/A
401400	Repacked	COMPLETED	3/28/2022	YES	N/A
401402	Repacked	COMPLETED	3/28/2022	YES	N/A
401403	Repacked	COMPLETED	3/28/2022	YES	N/A
401404	Repacked	COMPLETED	3/28/2022	YES	N/A
401731	Repacked	COMPLETED	3/28/2022	YES	N/A
501219	Repacked	COMPLETED	3/28/2022	YES	N/A
501312	Repacked	COMPLETED	3/28/2022	YES	N/A
506847	Repacked	COMPLETED	3/28/2022	YES	N/A
507513	Repacked	COMPLETED	3/28/2022	YES	N/A
602696	New Install	COMPLETED	3/28/2022	YES	N/A
702937	New Install	COMPLETED	3/28/2022	YES	N/A
702938	New Install	COMPLETED	3/28/2022	YES	N/A
751049	Repacked	COMPLETED	3/28/2022	YES	N/A
910250	Repacked	COMPLETED	3/28/2022	YES	N/A
917253	Repacked	COMPLETED	3/28/2022	YES	N/A
917305	New Install	COMPLETED	3/28/2022	YES	N/A
917306	Repacked	COMPLETED	3/28/2022	YES	N/A
917307	Repacked	COMPLETED	3/28/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
917559	Repacked	COMPLETED	3/28/2022	YES	N/A
918220	New Install	COMPLETED	3/28/2022	YES	N/A
928962	New Install	COMPLETED	3/28/2022	YES	N/A
C-0414	New Install	COMPLETED	3/28/2022	YES	N/A
C-0435	New Install	COMPLETED	3/28/2022	YES	N/A
D-0334	New Install	COMPLETED	3/28/2022	YES	N/A
G-0451	New Install	COMPLETED	3/28/2022	YES	N/A
G-0525	Repacked	COMPLETED	3/28/2022	YES	N/A
H-0478	Repacked	COMPLETED	3/28/2022	YES	N/A
J-1960	New Install	COMPLETED	3/28/2022	YES	N/A
K-12936	Repacked	COMPLETED	3/28/2022	YES	N/A
K-1318	New Install	COMPLETED	3/28/2022	YES	N/A
L-0551	Repacked	COMPLETED	3/28/2022	YES	N/A
201266	Repacked	COMPLETED	3/29/2022	YES	N/A
201375	Repacked	COMPLETED	3/29/2022	YES	N/A
202277	New Install	COMPLETED	3/29/2022	YES	N/A
202945	New Install	COMPLETED	3/29/2022	YES	N/A
202946	New Install	COMPLETED	3/29/2022	YES	N/A
202947	New Install	COMPLETED	3/29/2022	YES	N/A
203562	New Install	COMPLETED	3/29/2022	YES	N/A
203596	New Install	COMPLETED	3/29/2022	YES	N/A
203597	New Install	COMPLETED	3/29/2022	YES	N/A
203826	Repacked	COMPLETED	3/29/2022	YES	N/A
204344	Repacked	COMPLETED	3/29/2022	YES	N/A
204363	Repacked	COMPLETED	3/29/2022	YES	N/A
305527	Repacked	COMPLETED	3/29/2022	YES	N/A
306803	Repacked	COMPLETED	3/29/2022	YES	N/A
314401	Repacked	COMPLETED	3/29/2022	YES	N/A
314404	Repacked	COMPLETED	3/29/2022	YES	N/A
501223	Repacked	COMPLETED	3/29/2022	YES	N/A
505597	Repacked	COMPLETED	3/29/2022	YES	N/A
509796	New Install	COMPLETED	3/29/2022	YES	N/A
602719	Repacked	COMPLETED	3/29/2022	YES	N/A
914439	Repacked	COMPLETED	3/29/2022	YES	N/A
917258	New Install	COMPLETED	3/29/2022	YES	N/A
917259	New Install	COMPLETED	3/29/2022	YES	N/A
919604	Repacked	COMPLETED	3/29/2022	YES	N/A
D-0519	New Install	COMPLETED	3/29/2022	YES	N/A
F-0002B	New Install	COMPLETED	3/29/2022	YES	N/A
F-0393	New Install	COMPLETED	3/29/2022	YES	N/A
F-0395	Repacked	COMPLETED	3/29/2022	YES	N/A
F-1545	New Install	COMPLETED	3/29/2022	YES	N/A
F-1549	New Install	COMPLETED	3/29/2022	YES	N/A
G-0450	Repacked	COMPLETED	3/29/2022	YES	N/A
G-0727J	Repacked	COMPLETED	3/29/2022	YES	N/A
G-0730G	Repacked	COMPLETED	3/29/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
H-0086C	Repacked	COMPLETED	3/29/2022	YES	N/A
H-0132	Repacked	COMPLETED	3/29/2022	YES	N/A
K-0626	New Install	COMPLETED	3/29/2022	YES	N/A
L-0658	New Install	COMPLETED	3/29/2022	YES	N/A
M-0404	Repacked	COMPLETED	3/29/2022	YES	N/A
M-0443	Repacked	COMPLETED	3/29/2022	YES	N/A
M-0445	Repacked	COMPLETED	3/29/2022	YES	N/A
M-0489	New Install	COMPLETED	3/29/2022	YES	N/A
M-0502	Repacked	COMPLETED	3/29/2022	YES	N/A
M-0775	Repacked	COMPLETED	3/29/2022	YES	N/A
P-0870	New Install	COMPLETED	3/29/2022	YES	N/A
200502	New Install	COMPLETED	3/30/2022	YES	N/A
200503	New Install	COMPLETED	3/30/2022	YES	N/A
202819	New Install	COMPLETED	3/30/2022	YES	N/A
203365	Repacked	COMPLETED	3/30/2022	YES	N/A
204398	Repacked	COMPLETED	3/30/2022	YES	N/A
301294	Repacked	COMPLETED	3/30/2022	YES	N/A
307734	New Install	COMPLETED	3/30/2022	YES	N/A
309496	New Install	COMPLETED	3/30/2022	YES	N/A
309499	New Install	COMPLETED	3/30/2022	YES	N/A
310272	New Install	COMPLETED	3/30/2022	YES	N/A
506114	Repacked	COMPLETED	3/30/2022	YES	N/A
700994	New Install	COMPLETED	3/30/2022	YES	N/A
751248	Repacked	COMPLETED	3/30/2022	YES	N/A
834810	Repacked	COMPLETED	3/30/2022	YES	N/A
836784	Repacked	COMPLETED	3/30/2022	YES	N/A
837271	New Install	COMPLETED	3/30/2022	YES	N/A
917300	New Install	COMPLETED	3/30/2022	YES	N/A
919741	Repacked	COMPLETED	3/30/2022	YES	N/A
920703	New Install	COMPLETED	3/30/2022	YES	N/A
928835	Repacked	COMPLETED	3/30/2022	YES	N/A
929786	Repacked	COMPLETED	3/30/2022	YES	N/A
H-0200	New Install	COMPLETED	3/30/2022	YES	N/A
H-0206	New Install	COMPLETED	3/30/2022	YES	N/A
H-0621	New Install	COMPLETED	3/30/2022	YES	N/A
H-0630	New Install	COMPLETED	3/30/2022	YES	N/A
K-0948	Repacked	COMPLETED	3/30/2022	YES	N/A
K-0950	Repacked	COMPLETED	3/30/2022	YES	N/A
K-1023	Repacked	COMPLETED	3/30/2022	YES	N/A
K-1024	Repacked	COMPLETED	3/30/2022	YES	N/A
K-1081	Repacked	COMPLETED	3/30/2022	YES	N/A
K-1170	Repacked	COMPLETED	3/30/2022	YES	N/A
L-1190	New Install	COMPLETED	3/30/2022	YES	N/A
203092	New Install	COMPLETED	3/31/2022	YES	N/A
203620	New Install	COMPLETED	3/31/2022	YES	N/A
203695	New Install	COMPLETED	3/31/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
203923	Repacked	COMPLETED	3/31/2022	YES	N/A
204221	Repacked	COMPLETED	3/31/2022	YES	N/A
309085	Repacked	COMPLETED	3/31/2022	YES	N/A
310278	New Install	COMPLETED	3/31/2022	YES	N/A
317149	New Install	COMPLETED	3/31/2022	YES	N/A
317150	New Install	COMPLETED	3/31/2022	YES	N/A
317151	New Install	COMPLETED	3/31/2022	YES	N/A
317152	New Install	COMPLETED	3/31/2022	YES	N/A
317153	New Install	COMPLETED	3/31/2022	YES	N/A
317154	New Install	COMPLETED	3/31/2022	YES	N/A
317155	New Install	COMPLETED	3/31/2022	YES	N/A
317156	New Install	COMPLETED	3/31/2022	YES	N/A
317157	New Install	COMPLETED	3/31/2022	YES	N/A
317158	New Install	COMPLETED	3/31/2022	YES	N/A
317159	New Install	COMPLETED	3/31/2022	YES	N/A
317160	New Install	COMPLETED	3/31/2022	YES	N/A
317161	New Install	COMPLETED	3/31/2022	YES	N/A
317162	New Install	COMPLETED	3/31/2022	YES	N/A
503537	New Install	COMPLETED	3/31/2022	YES	N/A
505970	New Install	COMPLETED	3/31/2022	YES	N/A
507120	New Install	COMPLETED	3/31/2022	YES	N/A
507188	Repacked	COMPLETED	3/31/2022	YES	N/A
507286	Repacked	COMPLETED	3/31/2022	YES	N/A
604782	New Install	COMPLETED	3/31/2022	YES	N/A
604786	New Install	COMPLETED	3/31/2022	YES	N/A
750029	New Install	COMPLETED	3/31/2022	YES	N/A
750261	Repacked	COMPLETED	3/31/2022	YES	N/A
917188	Repacked	COMPLETED	3/31/2022	YES	N/A
918121	Repacked	COMPLETED	3/31/2022	YES	N/A
929686	Repacked	COMPLETED	3/31/2022	YES	N/A
929711	Repacked	COMPLETED	3/31/2022	YES	N/A
C-0177A	New Install	COMPLETED	3/31/2022	YES	N/A
H-0223A	Repacked	COMPLETED	3/31/2022	YES	N/A
H-0281	New Install	COMPLETED	3/31/2022	YES	N/A
K-0750	Repacked	COMPLETED	3/31/2022	YES	N/A
K-1069	New Install	COMPLETED	3/31/2022	YES	N/A
L-0422	Repacked	COMPLETED	3/31/2022	YES	N/A
L-0427	Repacked	COMPLETED	3/31/2022	YES	N/A
L-0443	Repacked	COMPLETED	3/31/2022	YES	N/A
L-0710	Repacked	COMPLETED	3/31/2022	YES	N/A
L-1122	Repacked	COMPLETED	3/31/2022	YES	N/A
M-0726	New Install	COMPLETED	3/31/2022	YES	N/A
M-0731	New Install	COMPLETED	3/31/2022	YES	N/A
M-0738	New Install	COMPLETED	3/31/2022	YES	N/A
P-0523	New Install	COMPLETED	3/31/2022	YES	N/A
10293	New Install	COMPLETED	4/1/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
10380	New Install	COMPLETED	4/1/2022	YES	N/A
202099	New Install	COMPLETED	4/1/2022	YES	N/A
202100	New Install	COMPLETED	4/1/2022	YES	N/A
202786	Repacked	COMPLETED	4/1/2022	YES	N/A
203290	Repacked	COMPLETED	4/1/2022	YES	N/A
204000	Repacked	COMPLETED	4/1/2022	YES	N/A
204102	Repacked	COMPLETED	4/1/2022	YES	N/A
204107	New Install	COMPLETED	4/1/2022	YES	N/A
204136	Repacked	COMPLETED	4/1/2022	YES	N/A
204325	Repacked	COMPLETED	4/1/2022	YES	N/A
204984	New Install	COMPLETED	4/1/2022	YES	N/A
300639	Repacked	COMPLETED	4/1/2022	YES	N/A
301930	Repacked	COMPLETED	4/1/2022	YES	N/A
315772	Repacked	COMPLETED	4/1/2022	YES	N/A
319506	New Install	COMPLETED	4/1/2022	YES	N/A
401405	Repacked	COMPLETED	4/1/2022	YES	N/A
402112	Repacked	COMPLETED	4/1/2022	YES	N/A
501768	New Install	COMPLETED	4/1/2022	YES	N/A
505706	Repacked	COMPLETED	4/1/2022	YES	N/A
520064	Repacked	COMPLETED	4/1/2022	YES	N/A
600822	New Install	COMPLETED	4/1/2022	YES	N/A
914348	New Install	COMPLETED	4/1/2022	YES	N/A
916243	New Install	COMPLETED	4/1/2022	YES	N/A
916305	New Install	COMPLETED	4/1/2022	YES	N/A
918958	New Install	COMPLETED	4/1/2022	YES	N/A
C-13325	New Install	COMPLETED	4/1/2022	YES	N/A
E-11878	New Install	COMPLETED	4/1/2022	YES	N/A
J-2322	New Install	COMPLETED	4/1/2022	YES	N/A
K-0801	New Install	COMPLETED	4/1/2022	YES	N/A
K-0813	New Install	COMPLETED	4/1/2022	YES	N/A
K-0814	New Install	COMPLETED	4/1/2022	YES	N/A
K-0815	New Install	COMPLETED	4/1/2022	YES	N/A
K-0983	Repacked	COMPLETED	4/1/2022	YES	N/A
K-1252	Repacked	COMPLETED	4/1/2022	YES	N/A
L-1058	Repacked	COMPLETED	4/1/2022	YES	N/A
P-0536	New Install	COMPLETED	4/1/2022	YES	N/A
10253	Repacked	COMPLETED	4/2/2022	YES	N/A
10313	Repacked	COMPLETED	4/2/2022	YES	N/A
203341	New Install	COMPLETED	4/2/2022	YES	N/A
203342	New Install	COMPLETED	4/2/2022	YES	N/A
203701	New Install	COMPLETED	4/2/2022	YES	N/A
204245	New Install	COMPLETED	4/2/2022	YES	N/A
204413	Repacked	COMPLETED	4/2/2022	YES	N/A
300520	Repacked	COMPLETED	4/2/2022	YES	N/A
300522	Repacked	COMPLETED	4/2/2022	YES	N/A
301938	Repacked	COMPLETED	4/2/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
301943	Repacked	COMPLETED	4/2/2022	YES	N/A
305420	Repacked	COMPLETED	4/2/2022	YES	N/A
307478	New Install	COMPLETED	4/2/2022	YES	N/A
309829	Repacked	COMPLETED	4/2/2022	YES	N/A
315769	Repacked	COMPLETED	4/2/2022	YES	N/A
316667	New Install	COMPLETED	4/2/2022	YES	N/A
317163	New Install	COMPLETED	4/2/2022	YES	N/A
500188	New Install	COMPLETED	4/2/2022	YES	N/A
503529	Repacked	COMPLETED	4/2/2022	YES	N/A
604837	Repacked	COMPLETED	4/2/2022	YES	N/A
604838	Repacked	COMPLETED	4/2/2022	YES	N/A
703013	Repacked	COMPLETED	4/2/2022	YES	N/A
703035	Repacked	COMPLETED	4/2/2022	YES	N/A
703063	Repacked	COMPLETED	4/2/2022	YES	N/A
703068	Repacked	COMPLETED	4/2/2022	YES	N/A
831260	New Install	COMPLETED	4/2/2022	YES	N/A
913601	New Install	COMPLETED	4/2/2022	YES	N/A
913792	New Install	COMPLETED	4/2/2022	YES	N/A
913797	New Install	COMPLETED	4/2/2022	YES	N/A
915581	New Install	COMPLETED	4/2/2022	YES	N/A
918177	Repacked	COMPLETED	4/2/2022	YES	N/A
E-0970	Repacked	COMPLETED	4/2/2022	YES	N/A
E-0984	Repacked	COMPLETED	4/2/2022	YES	N/A
E-0997	Repacked	COMPLETED	4/2/2022	YES	N/A
E-0999	Repacked	COMPLETED	4/2/2022	YES	N/A
F-0343	Repacked	COMPLETED	4/2/2022	YES	N/A
K-0795	Repacked	COMPLETED	4/2/2022	YES	N/A
M-0120	New Install	COMPLETED	4/2/2022	YES	N/A
M-0233	Repacked	COMPLETED	4/2/2022	YES	N/A
M-0469	New Install	COMPLETED	4/2/2022	YES	N/A
P-0218	Repacked	COMPLETED	4/2/2022	YES	N/A
316665	New Install	COMPLETED	4/2/2022	YES	N/A
316668	New Install	COMPLETED	4/2/2022	YES	N/A
316669	New Install	COMPLETED	4/2/2022	YES	N/A
316670	New Install	COMPLETED	4/2/2022	YES	N/A
316671	New Install	COMPLETED	4/2/2022	YES	N/A
316673	New Install	COMPLETED	4/2/2022	YES	N/A
316674	New Install	COMPLETED	4/2/2022	YES	N/A
200932	Repacked	COMPLETED	4/3/2022	YES	N/A
202788	Repacked	COMPLETED	4/3/2022	YES	N/A
202933	Repacked	COMPLETED	4/3/2022	YES	N/A
202940	Repacked	COMPLETED	4/3/2022	YES	N/A
203114	New Install	COMPLETED	4/3/2022	YES	N/A
203116	New Install	COMPLETED	4/3/2022	YES	N/A
203143	New Install	COMPLETED	4/3/2022	YES	N/A
204324	Repacked	COMPLETED	4/3/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
204736	Repacked	COMPLETED	4/3/2022	YES	N/A
309617	New Install	COMPLETED	4/3/2022	YES	N/A
313250	Repacked	COMPLETED	4/3/2022	YES	N/A
314383	Repacked	COMPLETED	4/3/2022	YES	N/A
314700	Repacked	COMPLETED	4/3/2022	YES	N/A
315777	New Install	COMPLETED	4/3/2022	YES	N/A
315779	New Install	COMPLETED	4/3/2022	YES	N/A
316683	New Install	COMPLETED	4/3/2022	YES	N/A
400181	Repacked	COMPLETED	4/3/2022	YES	N/A
400182	Repacked	COMPLETED	4/3/2022	YES	N/A
400233	Repacked	COMPLETED	4/3/2022	YES	N/A
400629	Repacked	COMPLETED	4/3/2022	YES	N/A
401235	New Install	COMPLETED	4/3/2022	YES	N/A
401242	New Install	COMPLETED	4/3/2022	YES	N/A
401245	New Install	COMPLETED	4/3/2022	YES	N/A
702619	New Install	COMPLETED	4/3/2022	YES	N/A
900059	Repacked	COMPLETED	4/3/2022	YES	N/A
900340	New Install	COMPLETED	4/3/2022	YES	N/A
900346	New Install	COMPLETED	4/3/2022	YES	N/A
911148	Repacked	COMPLETED	4/3/2022	YES	N/A
911921	New Install	COMPLETED	4/3/2022	YES	N/A
913562	Repacked	COMPLETED	4/3/2022	YES	N/A
913791	Repacked	COMPLETED	4/3/2022	YES	N/A
914591	Repacked	COMPLETED	4/3/2022	YES	N/A
917681	New Install	COMPLETED	4/3/2022	YES	N/A
920316	New Install	COMPLETED	4/3/2022	YES	N/A
929857	Repacked	COMPLETED	4/3/2022	YES	N/A
F-0149	New Install	COMPLETED	4/3/2022	YES	N/A
K-0759	New Install	COMPLETED	4/3/2022	YES	N/A
P-0426	Repacked	COMPLETED	4/3/2022	YES	N/A
P-0881	Repacked	COMPLETED	4/3/2022	YES	N/A
P-0981	Repacked	COMPLETED	4/3/2022	YES	N/A
P-1069	Repacked	COMPLETED	4/3/2022	YES	N/A
203768	New Install	COMPLETED	4/4/2022	YES	N/A
204803	Repacked	COMPLETED	4/4/2022	YES	N/A
301485	New Install	COMPLETED	4/4/2022	YES	N/A
301765	New Install	COMPLETED	4/4/2022	YES	N/A
310245	Repacked	COMPLETED	4/4/2022	YES	N/A
310251	Repacked	COMPLETED	4/4/2022	YES	N/A
315668	New Install	COMPLETED	4/4/2022	YES	N/A
315669	New Install	COMPLETED	4/4/2022	YES	N/A
315670	New Install	COMPLETED	4/4/2022	YES	N/A
315671	New Install	COMPLETED	4/4/2022	YES	N/A
315672	New Install	COMPLETED	4/4/2022	YES	N/A
315673	New Install	COMPLETED	4/4/2022	YES	N/A
315674	New Install	COMPLETED	4/4/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
315871	New Install	COMPLETED	4/4/2022	YES	N/A
317147	New Install	COMPLETED	4/4/2022	YES	N/A
317148	New Install	COMPLETED	4/4/2022	YES	N/A
317166	New Install	COMPLETED	4/4/2022	YES	N/A
318162	New Install	COMPLETED	4/4/2022	YES	N/A
319750	New Install	COMPLETED	4/4/2022	YES	N/A
400232	New Install	COMPLETED	4/4/2022	YES	N/A
500355	New Install	COMPLETED	4/4/2022	YES	N/A
502144	Repacked	COMPLETED	4/4/2022	YES	N/A
508636	New Install	COMPLETED	4/4/2022	YES	N/A
509132	Repacked	COMPLETED	4/4/2022	YES	N/A
509800	Repacked	COMPLETED	4/4/2022	YES	N/A
531622	Repacked	COMPLETED	4/4/2022	YES	N/A
531838	New Install	COMPLETED	4/4/2022	YES	N/A
603000	Repacked	COMPLETED	4/4/2022	YES	N/A
750281	New Install	COMPLETED	4/4/2022	YES	N/A
834708	Repacked	COMPLETED	4/4/2022	YES	N/A
836942	Repacked	COMPLETED	4/4/2022	YES	N/A
913641	Repacked	COMPLETED	4/4/2022	YES	N/A
914505	New Install	COMPLETED	4/4/2022	YES	N/A
917318	Repacked	COMPLETED	4/4/2022	YES	N/A
917868	Repacked	COMPLETED	4/4/2022	YES	N/A
F-1726	New Install	COMPLETED	4/4/2022	YES	N/A
F-1727	New Install	COMPLETED	4/4/2022	YES	N/A
G-0458	New Install	COMPLETED	4/4/2022	YES	N/A
G-0474	New Install	COMPLETED	4/4/2022	YES	N/A
G-0475	New Install	COMPLETED	4/4/2022	YES	N/A
G-0476	New Install	COMPLETED	4/4/2022	YES	N/A
G-0911	New Install	COMPLETED	4/4/2022	YES	N/A
H-0541	New Install	COMPLETED	4/4/2022	YES	N/A
200804	New Install	COMPLETED	4/5/2022	YES	N/A
204204	New Install	COMPLETED	4/5/2022	YES	N/A
300214	New Install	COMPLETED	4/5/2022	YES	N/A
301906	New Install	COMPLETED	4/5/2022	YES	N/A
305368	Repacked	COMPLETED	4/5/2022	YES	N/A
309397	New Install	COMPLETED	4/5/2022	YES	N/A
313536	Repacked	COMPLETED	4/5/2022	YES	N/A
314762	Repacked	COMPLETED	4/5/2022	YES	N/A
315768	New Install	COMPLETED	4/5/2022	YES	N/A
315776	New Install	COMPLETED	4/5/2022	YES	N/A
315778	New Install	COMPLETED	4/5/2022	YES	N/A
316686	New Install	COMPLETED	4/5/2022	YES	N/A
318103	New Install	COMPLETED	4/5/2022	YES	N/A
318104	New Install	COMPLETED	4/5/2022	YES	N/A
401148	New Install	COMPLETED	4/5/2022	YES	N/A
510229	New Install	COMPLETED	4/5/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
510307	New Install	COMPLETED	4/5/2022	YES	N/A
704229	New Install	COMPLETED	4/5/2022	YES	N/A
750977	Repacked	COMPLETED	4/5/2022	YES	N/A
833807	Repacked	COMPLETED	4/5/2022	YES	N/A
833809	Repacked	COMPLETED	4/5/2022	YES	N/A
837706	Repacked	COMPLETED	4/5/2022	YES	N/A
920979	New Install	COMPLETED	4/5/2022	YES	N/A
B-1241	Repacked	COMPLETED	4/5/2022	YES	N/A
B-2746	Repacked	COMPLETED	4/5/2022	YES	N/A
B-2768	Repacked	COMPLETED	4/5/2022	YES	N/A
B-2777	Repacked	COMPLETED	4/5/2022	YES	N/A
D-0007	Repacked	COMPLETED	4/5/2022	YES	N/A
F-0147	New Install	COMPLETED	4/5/2022	YES	N/A
201201	Repacked	COMPLETED	4/6/2022	YES	N/A
202708	New Install	COMPLETED	4/6/2022	YES	N/A
203641	New Install	COMPLETED	4/6/2022	YES	N/A
300649	Repacked	COMPLETED	4/6/2022	YES	N/A
300874	Repacked	COMPLETED	4/6/2022	YES	N/A
301707	Repacked	COMPLETED	4/6/2022	YES	N/A
301708	Repacked	COMPLETED	4/6/2022	YES	N/A
301709	Repacked	COMPLETED	4/6/2022	YES	N/A
301712	Repacked	COMPLETED	4/6/2022	YES	N/A
301717	Repacked	COMPLETED	4/6/2022	YES	N/A
301719	Repacked	COMPLETED	4/6/2022	YES	N/A
301726	Repacked	COMPLETED	4/6/2022	YES	N/A
301750	Repacked	COMPLETED	4/6/2022	YES	N/A
301751	Repacked	COMPLETED	4/6/2022	YES	N/A
301754	Repacked	COMPLETED	4/6/2022	YES	N/A
301759	Repacked	COMPLETED	4/6/2022	YES	N/A
301762	Repacked	COMPLETED	4/6/2022	YES	N/A
301775	Repacked	COMPLETED	4/6/2022	YES	N/A
301942	Repacked	COMPLETED	4/6/2022	YES	N/A
308333	New Install	COMPLETED	4/6/2022	YES	N/A
309545	Repacked	COMPLETED	4/6/2022	YES	N/A
309745	Repacked	COMPLETED	4/6/2022	YES	N/A
315885	New Install	COMPLETED	4/6/2022	YES	N/A
400710	Repacked	COMPLETED	4/6/2022	YES	N/A
501832	New Install	COMPLETED	4/6/2022	YES	N/A
505166	Repacked	COMPLETED	4/6/2022	YES	N/A
532923	Repacked	COMPLETED	4/6/2022	YES	N/A
833052	Repacked	COMPLETED	4/6/2022	YES	N/A
833053	Repacked	COMPLETED	4/6/2022	YES	N/A
833056	Repacked	COMPLETED	4/6/2022	YES	N/A
833602	Repacked	COMPLETED	4/6/2022	YES	N/A
837890	Repacked	COMPLETED	4/6/2022	YES	N/A
917964	Repacked	COMPLETED	4/6/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
929342	New Install	COMPLETED	4/6/2022	YES	N/A
A-0062	Repacked	COMPLETED	4/6/2022	YES	N/A
B-10628	Repacked	COMPLETED	4/6/2022	YES	N/A
D-0257	Repacked	COMPLETED	4/6/2022	YES	N/A
D-0270	Repacked	COMPLETED	4/6/2022	YES	N/A
D-0325	Repacked	COMPLETED	4/6/2022	YES	N/A
D-0510	Repacked	COMPLETED	4/6/2022	YES	N/A
D-1688	Repacked	COMPLETED	4/6/2022	YES	N/A
E-0769	Repacked	COMPLETED	4/6/2022	YES	N/A
E-0943	New Install	COMPLETED	4/6/2022	YES	N/A
E-0946	New Install	COMPLETED	4/6/2022	YES	N/A
E-0996	Repacked	COMPLETED	4/6/2022	YES	N/A
E-12239	New Install	COMPLETED	4/6/2022	YES	N/A
H-0826	New Install	COMPLETED	4/6/2022	YES	N/A
J-1567	New Install	COMPLETED	4/6/2022	YES	N/A
M-0078	Repacked	COMPLETED	4/6/2022	YES	N/A
M-0580	New Install	COMPLETED	4/6/2022	YES	N/A
316677	New Install	COMPLETED	4/6/2022	YES	N/A
316678	New Install	COMPLETED	4/6/2022	YES	N/A
316666	New Install	COMPLETED	4/6/2022	YES	N/A
316684	New Install	COMPLETED	4/6/2022	YES	N/A
203716	New Install	COMPLETED	4/7/2022	YES	N/A
203718	New Install	COMPLETED	4/7/2022	YES	N/A
204459	New Install	COMPLETED	4/7/2022	YES	N/A
204780	New Install	COMPLETED	4/7/2022	YES	N/A
305529	New Install	COMPLETED	4/7/2022	YES	N/A
306494	Repacked	COMPLETED	4/7/2022	YES	N/A
309398	Repacked	COMPLETED	4/7/2022	YES	N/A
502101	Repacked	COMPLETED	4/7/2022	YES	N/A
507091	Repacked	COMPLETED	4/7/2022	YES	N/A
507278	Repacked	COMPLETED	4/7/2022	YES	N/A
509698	New Install	COMPLETED	4/7/2022	YES	N/A
532447	New Install	COMPLETED	4/7/2022	YES	N/A
837253	Repacked	COMPLETED	4/7/2022	YES	N/A
837326	Repacked	COMPLETED	4/7/2022	YES	N/A
837893	New Install	COMPLETED	4/7/2022	YES	N/A
913196	New Install	COMPLETED	4/7/2022	YES	N/A
920317	Repacked	COMPLETED	4/7/2022	YES	N/A
929291	Repacked	COMPLETED	4/7/2022	YES	N/A
929574	Repacked	COMPLETED	4/7/2022	YES	N/A
C-0513	New Install	COMPLETED	4/7/2022	YES	N/A
D-0105	New Install	COMPLETED	4/7/2022	YES	N/A
D-0327	New Install	COMPLETED	4/7/2022	YES	N/A
E-0815	Repacked	COMPLETED	4/7/2022	YES	N/A
E-0965	Repacked	COMPLETED	4/7/2022	YES	N/A
F-0040	Repacked	COMPLETED	4/7/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
F-0533	New Install	COMPLETED	4/7/2022	YES	N/A
F-1657	Repacked	COMPLETED	4/7/2022	YES	N/A
G-0956	Repacked	COMPLETED	4/7/2022	YES	N/A
G-12675	New Install	COMPLETED	4/7/2022	YES	N/A
K-1186N	New Install	COMPLETED	4/7/2022	YES	N/A
K-1186Q	New Install	COMPLETED	4/7/2022	YES	N/A
L-0629	New Install	COMPLETED	4/7/2022	YES	N/A
M-0053	New Install	COMPLETED	4/7/2022	YES	N/A
P-1059	New Install	COMPLETED	4/7/2022	YES	N/A
200461	Repacked	COMPLETED	4/8/2022	YES	N/A
203136	New Install	COMPLETED	4/8/2022	YES	N/A
203239	New Install	COMPLETED	4/8/2022	YES	N/A
203927	Repacked	COMPLETED	4/8/2022	YES	N/A
301606	Repacked	COMPLETED	4/8/2022	YES	N/A
307126	New Install	COMPLETED	4/8/2022	YES	N/A
308153	New Install	COMPLETED	4/8/2022	YES	N/A
309244	New Install	COMPLETED	4/8/2022	YES	N/A
315049	New Install	COMPLETED	4/8/2022	YES	N/A
317165	New Install	COMPLETED	4/8/2022	YES	N/A
400311	New Install	COMPLETED	4/8/2022	YES	N/A
834728	Repacked	COMPLETED	4/8/2022	YES	N/A
929507	New Install	COMPLETED	4/8/2022	YES	N/A
P-0033	New Install	COMPLETED	4/8/2022	YES	N/A
203954	New Install	COMPLETED	4/9/2022	YES	N/A
306974	New Install	COMPLETED	4/9/2022	YES	N/A
307609	New Install	COMPLETED	4/9/2022	YES	N/A
400105	New Install	COMPLETED	4/9/2022	YES	N/A
500839	New Install	COMPLETED	4/9/2022	YES	N/A
603911	New Install	COMPLETED	4/9/2022	YES	N/A
D-0191	New Install	COMPLETED	4/9/2022	YES	N/A
F-0632	New Install	COMPLETED	4/9/2022	YES	N/A
G-0511	New Install	COMPLETED	4/9/2022	YES	N/A
G-0617	New Install	COMPLETED	4/9/2022	YES	N/A
300025	New Install	COMPLETED	4/10/2022	YES	N/A
313015	New Install	COMPLETED	4/10/2022	YES	N/A
313016	New Install	COMPLETED	4/10/2022	YES	N/A
315637	New Install	COMPLETED	4/10/2022	YES	N/A
316316	New Install	COMPLETED	4/10/2022	YES	N/A
316317	New Install	COMPLETED	4/10/2022	YES	N/A
316685	New Install	COMPLETED	4/10/2022	YES	N/A
316688	New Install	COMPLETED	4/10/2022	YES	N/A
835164	New Install	COMPLETED	4/10/2022	YES	N/A
919969	New Install	COMPLETED	4/10/2022	YES	N/A
928664	New Install	COMPLETED	4/10/2022	YES	N/A
G-0576	New Install	COMPLETED	4/10/2022	YES	N/A
10580	New Install	COMPLETED	4/11/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
11099	New Install	COMPLETED	4/11/2022	YES	N/A
203979	New Install	COMPLETED	4/11/2022	YES	N/A
310277	New Install	COMPLETED	4/11/2022	YES	N/A
313009	New Install	COMPLETED	4/11/2022	YES	N/A
313019	New Install	COMPLETED	4/11/2022	YES	N/A
313033	New Install	COMPLETED	4/11/2022	YES	N/A
315773	New Install	COMPLETED	4/11/2022	YES	N/A
316681	New Install	COMPLETED	4/11/2022	YES	N/A
317772	New Install	COMPLETED	4/11/2022	YES	N/A
317773	New Install	COMPLETED	4/11/2022	YES	N/A
317774	New Install	COMPLETED	4/11/2022	YES	N/A
317775	New Install	COMPLETED	4/11/2022	YES	N/A
317776	New Install	COMPLETED	4/11/2022	YES	N/A
317777	New Install	COMPLETED	4/11/2022	YES	N/A
317778	New Install	COMPLETED	4/11/2022	YES	N/A
317779	New Install	COMPLETED	4/11/2022	YES	N/A
317780	New Install	COMPLETED	4/11/2022	YES	N/A
317781	New Install	COMPLETED	4/11/2022	YES	N/A
317782	New Install	COMPLETED	4/11/2022	YES	N/A
317783	New Install	COMPLETED	4/11/2022	YES	N/A
317784	New Install	COMPLETED	4/11/2022	YES	N/A
317785	New Install	COMPLETED	4/11/2022	YES	N/A
317786	New Install	COMPLETED	4/11/2022	YES	N/A
317787	New Install	COMPLETED	4/11/2022	YES	N/A
509358	New Install	COMPLETED	4/11/2022	YES	N/A
510094	New Install	COMPLETED	4/11/2022	YES	N/A
510324	New Install	COMPLETED	4/11/2022	YES	N/A
916306	New Install	COMPLETED	4/11/2022	YES	N/A
917205	New Install	COMPLETED	4/11/2022	YES	N/A
917206	New Install	COMPLETED	4/11/2022	YES	N/A
917610	New Install	COMPLETED	4/11/2022	YES	N/A
917658	New Install	COMPLETED	4/11/2022	YES	N/A
927052	New Install	COMPLETED	4/11/2022	YES	N/A
927053	New Install	COMPLETED	4/11/2022	YES	N/A
E-0338	New Install	COMPLETED	4/11/2022	YES	N/A
G-0730B	New Install	COMPLETED	4/11/2022	YES	N/A
G-0768	New Install	COMPLETED	4/11/2022	YES	N/A
K-1119	New Install	COMPLETED	4/11/2022	YES	N/A
L-0918	New Install	COMPLETED	4/11/2022	YES	N/A
P-0167	New Install	COMPLETED	4/11/2022	YES	N/A
P-0493	New Install	COMPLETED	4/11/2022	YES	N/A
313013	New Install	COMPLETED	4/11/2022	YES	N/A
313014	New Install	COMPLETED	4/11/2022	YES	N/A
200999	New Install	COMPLETED	4/12/2022	YES	N/A
203046	New Install	COMPLETED	4/12/2022	YES	N/A
204068	New Install	COMPLETED	4/12/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
301297	New Install	COMPLETED	4/12/2022	YES	N/A
307022	New Install	COMPLETED	4/12/2022	YES	N/A
308653	New Install	COMPLETED	4/12/2022	YES	N/A
315774	New Install	COMPLETED	4/12/2022	YES	N/A
532524	New Install	COMPLETED	4/12/2022	YES	N/A
837998	New Install	COMPLETED	4/12/2022	YES	N/A
916798	New Install	COMPLETED	4/12/2022	YES	N/A
918289	New Install	COMPLETED	4/12/2022	YES	N/A
918290	New Install	COMPLETED	4/12/2022	YES	N/A
918856	New Install	COMPLETED	4/12/2022	YES	N/A
923983	New Install	COMPLETED	4/12/2022	YES	N/A
926557	New Install	COMPLETED	4/12/2022	YES	N/A
926561	New Install	COMPLETED	4/12/2022	YES	N/A
D-1653	New Install	COMPLETED	4/12/2022	YES	N/A
D-1654	New Install	COMPLETED	4/12/2022	YES	N/A
D-1696	New Install	COMPLETED	4/12/2022	YES	N/A
E-13173	New Install	COMPLETED	4/12/2022	YES	N/A
G-0276	New Install	COMPLETED	4/12/2022	YES	N/A
G-12813B	New Install	COMPLETED	4/12/2022	YES	N/A
203912	New Install	COMPLETED	4/13/2022	YES	N/A
204302	New Install	COMPLETED	4/13/2022	YES	N/A
307927	New Install	COMPLETED	4/13/2022	YES	N/A
318108	New Install	COMPLETED	4/13/2022	YES	N/A
318109	New Install	COMPLETED	4/13/2022	YES	N/A
318110	New Install	COMPLETED	4/13/2022	YES	N/A
318120	New Install	COMPLETED	4/13/2022	YES	N/A
318151	New Install	COMPLETED	4/13/2022	YES	N/A
401100	New Install	COMPLETED	4/13/2022	YES	N/A
500015	New Install	COMPLETED	4/13/2022	YES	N/A
500016	New Install	COMPLETED	4/13/2022	YES	N/A
501231	New Install	COMPLETED	4/13/2022	YES	N/A
503298	New Install	COMPLETED	4/13/2022	YES	N/A
837492	New Install	COMPLETED	4/13/2022	YES	N/A
914478	New Install	COMPLETED	4/13/2022	YES	N/A
914480	New Install	COMPLETED	4/13/2022	YES	N/A
914481	New Install	COMPLETED	4/13/2022	YES	N/A
914482	New Install	COMPLETED	4/13/2022	YES	N/A
B-0070	New Install	COMPLETED	4/13/2022	YES	N/A
F-13289	New Install	COMPLETED	4/13/2022	YES	N/A
F-13291	New Install	COMPLETED	4/13/2022	YES	N/A
F-1524	New Install	COMPLETED	4/13/2022	YES	N/A
F-1589	New Install	COMPLETED	4/13/2022	YES	N/A
L-0714	New Install	COMPLETED	4/13/2022	YES	N/A
M-0565	New Install	COMPLETED	4/13/2022	YES	N/A
Q-0603	New Install	COMPLETED	4/13/2022	YES	N/A
203925	New Install	COMPLETED	4/14/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
204638	New Install	COMPLETED	4/14/2022	YES	N/A
307641	New Install	COMPLETED	4/14/2022	YES	N/A
308628	New Install	COMPLETED	4/14/2022	YES	N/A
309221	New Install	COMPLETED	4/14/2022	YES	N/A
313844	New Install	COMPLETED	4/14/2022	YES	N/A
318102	New Install	COMPLETED	4/14/2022	YES	N/A
318117	New Install	COMPLETED	4/14/2022	YES	N/A
318118	New Install	COMPLETED	4/14/2022	YES	N/A
318119	New Install	COMPLETED	4/14/2022	YES	N/A
318155	New Install	COMPLETED	4/14/2022	YES	N/A
401832	New Install	COMPLETED	4/14/2022	YES	N/A
401958	New Install	COMPLETED	4/14/2022	YES	N/A
500461	New Install	COMPLETED	4/14/2022	YES	N/A
501632	New Install	COMPLETED	4/14/2022	YES	N/A
507182	New Install	COMPLETED	4/14/2022	YES	N/A
600176	New Install	COMPLETED	4/14/2022	YES	N/A
600177	New Install	COMPLETED	4/14/2022	YES	N/A
604841	New Install	COMPLETED	4/14/2022	YES	N/A
604844	New Install	COMPLETED	4/14/2022	YES	N/A
604845	New Install	COMPLETED	4/14/2022	YES	N/A
604846	New Install	COMPLETED	4/14/2022	YES	N/A
604848	New Install	COMPLETED	4/14/2022	YES	N/A
604849	New Install	COMPLETED	4/14/2022	YES	N/A
604850	New Install	COMPLETED	4/14/2022	YES	N/A
704538	New Install	COMPLETED	4/14/2022	YES	N/A
832089	New Install	COMPLETED	4/14/2022	YES	N/A
837233	New Install	COMPLETED	4/14/2022	YES	N/A
900090	New Install	COMPLETED	4/14/2022	YES	N/A
900091	New Install	COMPLETED	4/14/2022	YES	N/A
900094	New Install	COMPLETED	4/14/2022	YES	N/A
900762	New Install	COMPLETED	4/14/2022	YES	N/A
900961	New Install	COMPLETED	4/14/2022	YES	N/A
900962	New Install	COMPLETED	4/14/2022	YES	N/A
925122	New Install	COMPLETED	4/14/2022	YES	N/A
925125	New Install	COMPLETED	4/14/2022	YES	N/A
929700	New Install	COMPLETED	4/14/2022	YES	N/A
F-0161	New Install	COMPLETED	4/14/2022	YES	N/A
G-1175	New Install	COMPLETED	4/14/2022	YES	N/A
H-0274	New Install	COMPLETED	4/14/2022	YES	N/A
H-0275	New Install	COMPLETED	4/14/2022	YES	N/A
k-13091	New Install	COMPLETED	4/14/2022	YES	N/A
k-13092	New Install	COMPLETED	4/14/2022	YES	N/A
M-0768	New Install	COMPLETED	4/14/2022	YES	N/A
313017	New Install	COMPLETED	4/14/2022	YES	N/A
313018	New Install	COMPLETED	4/14/2022	YES	N/A
200805	New Install	COMPLETED	4/15/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
203616	New Install	COMPLETED	4/15/2022	YES	N/A
203617	New Install	COMPLETED	4/15/2022	YES	N/A
203830	New Install	COMPLETED	4/15/2022	YES	N/A
308888	New Install	COMPLETED	4/15/2022	YES	N/A
315781	New Install	COMPLETED	4/15/2022	YES	N/A
318111	New Install	COMPLETED	4/15/2022	YES	N/A
318112	New Install	COMPLETED	4/15/2022	YES	N/A
318113	New Install	COMPLETED	4/15/2022	YES	N/A
318114	New Install	COMPLETED	4/15/2022	YES	N/A
318115	New Install	COMPLETED	4/15/2022	YES	N/A
318116	New Install	COMPLETED	4/15/2022	YES	N/A
318152	New Install	COMPLETED	4/15/2022	YES	N/A
318153	New Install	COMPLETED	4/15/2022	YES	N/A
319521	New Install	COMPLETED	4/15/2022	YES	N/A
501067	New Install	COMPLETED	4/15/2022	YES	N/A
501068	New Install	COMPLETED	4/15/2022	YES	N/A
603383	New Install	COMPLETED	4/15/2022	YES	N/A
835576	New Install	COMPLETED	4/15/2022	YES	N/A
C-0969	New Install	COMPLETED	4/15/2022	YES	N/A
10612	New Install	COMPLETED	4/16/2022	YES	N/A
202956	New Install	COMPLETED	4/16/2022	YES	N/A
203353	New Install	COMPLETED	4/16/2022	YES	N/A
203357	New Install	COMPLETED	4/16/2022	YES	N/A
203553	New Install	COMPLETED	4/16/2022	YES	N/A
203692	New Install	COMPLETED	4/16/2022	YES	N/A
203726	New Install	COMPLETED	4/16/2022	YES	N/A
204084	New Install	COMPLETED	4/16/2022	YES	N/A
300150	New Install	COMPLETED	4/16/2022	YES	N/A
305412	New Install	COMPLETED	4/16/2022	YES	N/A
305786	New Install	COMPLETED	4/16/2022	YES	N/A
307722	New Install	COMPLETED	4/16/2022	YES	N/A
307723	New Install	COMPLETED	4/16/2022	YES	N/A
308433	New Install	COMPLETED	4/16/2022	YES	N/A
308434	New Install	COMPLETED	4/16/2022	YES	N/A
308435	New Install	COMPLETED	4/16/2022	YES	N/A
308436	New Install	COMPLETED	4/16/2022	YES	N/A
309377	New Install	COMPLETED	4/16/2022	YES	N/A
309500	New Install	COMPLETED	4/16/2022	YES	N/A
310784	New Install	COMPLETED	4/16/2022	YES	N/A
313047	New Install	COMPLETED	4/16/2022	YES	N/A
313048	New Install	COMPLETED	4/16/2022	YES	N/A
313049	New Install	COMPLETED	4/16/2022	YES	N/A
313050	New Install	COMPLETED	4/16/2022	YES	N/A
313051	New Install	COMPLETED	4/16/2022	YES	N/A
313052	New Install	COMPLETED	4/16/2022	YES	N/A
313053	New Install	COMPLETED	4/16/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
313054	New Install	COMPLETED	4/16/2022	YES	N/A
313055	New Install	COMPLETED	4/16/2022	YES	N/A
313056	New Install	COMPLETED	4/16/2022	YES	N/A
313057	New Install	COMPLETED	4/16/2022	YES	N/A
313058	New Install	COMPLETED	4/16/2022	YES	N/A
313059	New Install	COMPLETED	4/16/2022	YES	N/A
313060	New Install	COMPLETED	4/16/2022	YES	N/A
313061	New Install	COMPLETED	4/16/2022	YES	N/A
313062	New Install	COMPLETED	4/16/2022	YES	N/A
313063	New Install	COMPLETED	4/16/2022	YES	N/A
313086	New Install	COMPLETED	4/16/2022	YES	N/A
313095	New Install	COMPLETED	4/16/2022	YES	N/A
313096	New Install	COMPLETED	4/16/2022	YES	N/A
314406	New Install	COMPLETED	4/16/2022	YES	N/A
314407	New Install	COMPLETED	4/16/2022	YES	N/A
314408	New Install	COMPLETED	4/16/2022	YES	N/A
314409	New Install	COMPLETED	4/16/2022	YES	N/A
315488	New Install	COMPLETED	4/16/2022	YES	N/A
315638	New Install	COMPLETED	4/16/2022	YES	N/A
315639	New Install	COMPLETED	4/16/2022	YES	N/A
315642	New Install	COMPLETED	4/16/2022	YES	N/A
315644	New Install	COMPLETED	4/16/2022	YES	N/A
315647	New Install	COMPLETED	4/16/2022	YES	N/A
315648	New Install	COMPLETED	4/16/2022	YES	N/A
315649	New Install	COMPLETED	4/16/2022	YES	N/A
315650	New Install	COMPLETED	4/16/2022	YES	N/A
315651	New Install	COMPLETED	4/16/2022	YES	N/A
315770	New Install	COMPLETED	4/16/2022	YES	N/A
315784	New Install	COMPLETED	4/16/2022	YES	N/A
318101	New Install	COMPLETED	4/16/2022	YES	N/A
318105	New Install	COMPLETED	4/16/2022	YES	N/A
318107	New Install	COMPLETED	4/16/2022	YES	N/A
318123	New Install	COMPLETED	4/16/2022	YES	N/A
318124	New Install	COMPLETED	4/16/2022	YES	N/A
318125	New Install	COMPLETED	4/16/2022	YES	N/A
318126	New Install	COMPLETED	4/16/2022	YES	N/A
318127	New Install	COMPLETED	4/16/2022	YES	N/A
318128	New Install	COMPLETED	4/16/2022	YES	N/A
318129	New Install	COMPLETED	4/16/2022	YES	N/A
318130	New Install	COMPLETED	4/16/2022	YES	N/A
318131	New Install	COMPLETED	4/16/2022	YES	N/A
318132	New Install	COMPLETED	4/16/2022	YES	N/A
318133	New Install	COMPLETED	4/16/2022	YES	N/A
318134	New Install	COMPLETED	4/16/2022	YES	N/A
318135	New Install	COMPLETED	4/16/2022	YES	N/A
318136	New Install	COMPLETED	4/16/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
318137	New Install	COMPLETED	4/16/2022	YES	N/A
318138	New Install	COMPLETED	4/16/2022	YES	N/A
318139	New Install	COMPLETED	4/16/2022	YES	N/A
318140	New Install	COMPLETED	4/16/2022	YES	N/A
318141	New Install	COMPLETED	4/16/2022	YES	N/A
318142	New Install	COMPLETED	4/16/2022	YES	N/A
318143	New Install	COMPLETED	4/16/2022	YES	N/A
318144	New Install	COMPLETED	4/16/2022	YES	N/A
318145	New Install	COMPLETED	4/16/2022	YES	N/A
318146	New Install	COMPLETED	4/16/2022	YES	N/A
318147	New Install	COMPLETED	4/16/2022	YES	N/A
318163	New Install	COMPLETED	4/16/2022	YES	N/A
318164	New Install	COMPLETED	4/16/2022	YES	N/A
318166	New Install	COMPLETED	4/16/2022	YES	N/A
318167	New Install	COMPLETED	4/16/2022	YES	N/A
318170	New Install	COMPLETED	4/16/2022	YES	N/A
318171	New Install	COMPLETED	4/16/2022	YES	N/A
400475	New Install	COMPLETED	4/16/2022	YES	N/A
506199	New Install	COMPLETED	4/16/2022	YES	N/A
509777	New Install	COMPLETED	4/16/2022	YES	N/A
509792	New Install	COMPLETED	4/16/2022	YES	N/A
510098	New Install	COMPLETED	4/16/2022	YES	N/A
510305	New Install	COMPLETED	4/16/2022	YES	N/A
531831	New Install	COMPLETED	4/16/2022	YES	N/A
602101	New Install	COMPLETED	4/16/2022	YES	N/A
603673	New Install	COMPLETED	4/16/2022	YES	N/A
703073	New Install	COMPLETED	4/16/2022	YES	N/A
836764	New Install	COMPLETED	4/16/2022	YES	N/A
911993	New Install	COMPLETED	4/16/2022	YES	N/A
919237	New Install	COMPLETED	4/16/2022	YES	N/A
925059	New Install	COMPLETED	4/16/2022	YES	N/A
927847	New Install	COMPLETED	4/16/2022	YES	N/A
A-0050	New Install	COMPLETED	4/16/2022	YES	N/A
F-0278	New Install	COMPLETED	4/16/2022	YES	N/A
G-0654	New Install	COMPLETED	4/16/2022	YES	N/A
G-12600	New Install	COMPLETED	4/16/2022	YES	N/A
G-12602	New Install	COMPLETED	4/16/2022	YES	N/A
H-0605	New Install	COMPLETED	4/16/2022	YES	N/A
H-0606	New Install	COMPLETED	4/16/2022	YES	N/A
H-0607	New Install	COMPLETED	4/16/2022	YES	N/A
H-0608	New Install	COMPLETED	4/16/2022	YES	N/A
K-0051	New Install	COMPLETED	4/16/2022	YES	N/A
K-0989	New Install	COMPLETED	4/16/2022	YES	N/A
K-1177I	New Install	COMPLETED	4/16/2022	YES	N/A
K-1186V	New Install	COMPLETED	4/16/2022	YES	N/A
K-1297B	New Install	COMPLETED	4/16/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
K-2541	New Install	COMPLETED	4/16/2022	YES	N/A
P-0202	New Install	COMPLETED	4/16/2022	YES	N/A
P-0204	New Install	COMPLETED	4/16/2022	YES	N/A
P-0296	New Install	COMPLETED	4/16/2022	YES	N/A
P-0377	New Install	COMPLETED	4/16/2022	YES	N/A
P-0503	New Install	COMPLETED	4/16/2022	YES	N/A
P-0508	New Install	COMPLETED	4/16/2022	YES	N/A
P-0730	New Install	COMPLETED	4/16/2022	YES	N/A
P-0801	New Install	COMPLETED	4/16/2022	YES	N/A
P-0815	New Install	COMPLETED	4/16/2022	YES	N/A
P-1232	New Install	COMPLETED	4/16/2022	YES	N/A
201461	New Install	COMPLETED	4/17/2022	YES	N/A
309082	New Install	COMPLETED	4/17/2022	YES	N/A
313465	New Install	COMPLETED	4/17/2022	YES	N/A
501318	New Install	COMPLETED	4/17/2022	YES	N/A
701616	New Install	COMPLETED	4/17/2022	YES	N/A
836057	New Install	COMPLETED	4/17/2022	YES	N/A
836062	New Install	COMPLETED	4/17/2022	YES	N/A
836064	New Install	COMPLETED	4/17/2022	YES	N/A
836077	New Install	COMPLETED	4/17/2022	YES	N/A
836078	New Install	COMPLETED	4/17/2022	YES	N/A
836079	New Install	COMPLETED	4/17/2022	YES	N/A
836082	New Install	COMPLETED	4/17/2022	YES	N/A
B-2793	New Install	COMPLETED	4/17/2022	YES	N/A
K-1431	New Install	COMPLETED	4/17/2022	YES	N/A
K-1434	New Install	COMPLETED	4/17/2022	YES	N/A
200861	New Install	COMPLETED	4/18/2022	YES	N/A
313085	New Install	COMPLETED	4/18/2022	YES	N/A
315641	New Install	COMPLETED	4/18/2022	YES	N/A
319746	New Install	COMPLETED	4/18/2022	YES	N/A
503698	New Install	COMPLETED	4/18/2022	YES	N/A
504509	New Install	COMPLETED	4/18/2022	YES	N/A
E-0110	New Install	COMPLETED	4/18/2022	YES	N/A
F-0044	New Install	COMPLETED	4/18/2022	YES	N/A
G-0304	New Install	COMPLETED	4/18/2022	YES	N/A
H-0297	New Install	COMPLETED	4/18/2022	YES	N/A
305469	New Install	COMPLETED	4/19/2022	YES	N/A
313023	New Install	COMPLETED	4/19/2022	YES	N/A
313024	New Install	COMPLETED	4/19/2022	YES	N/A
313025	New Install	COMPLETED	4/19/2022	YES	N/A
313031	New Install	COMPLETED	4/19/2022	YES	N/A
313032	New Install	COMPLETED	4/19/2022	YES	N/A
314415	New Install	COMPLETED	4/19/2022	YES	N/A
314416	New Install	COMPLETED	4/19/2022	YES	N/A
314417	New Install	COMPLETED	4/19/2022	YES	N/A
314418	New Install	COMPLETED	4/19/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
317061	New Install	COMPLETED	4/19/2022	YES	N/A
317062	New Install	COMPLETED	4/19/2022	YES	N/A
317063	New Install	COMPLETED	4/19/2022	YES	N/A
503250	New Install	COMPLETED	4/19/2022	YES	N/A
L-0230	New Install	COMPLETED	4/19/2022	YES	N/A
313035	New Install	COMPLETED	4/19/2022	YES	N/A
313036	New Install	COMPLETED	4/19/2022	YES	N/A
313037	New Install	COMPLETED	4/19/2022	YES	N/A
313038	New Install	COMPLETED	4/19/2022	YES	N/A
313041	New Install	COMPLETED	4/19/2022	YES	N/A
313042	New Install	COMPLETED	4/19/2022	YES	N/A
313043	New Install	COMPLETED	4/19/2022	YES	N/A
313044	New Install	COMPLETED	4/19/2022	YES	N/A
E-0789	New Install	COMPLETED	4/20/2022	YES	N/A
J-1539	Repacked	COMPLETED	4/20/2022	YES	N/A
J-2005	New Install	COMPLETED	4/20/2022	YES	N/A
921266	New Install	COMPLETED	4/21/2022	YES	N/A
313066	New Install	COMPLETED	4/21/2022	YES	N/A
313067	New Install	COMPLETED	4/21/2022	YES	N/A
313068	New Install	COMPLETED	4/21/2022	YES	N/A
313069	New Install	COMPLETED	4/21/2022	YES	N/A
315606	New Install	COMPLETED	4/23/2022	YES	N/A
315607	New Install	COMPLETED	4/23/2022	YES	N/A
315608	New Install	COMPLETED	4/23/2022	YES	N/A
315609	New Install	COMPLETED	4/23/2022	YES	N/A
315610	New Install	COMPLETED	4/23/2022	YES	N/A
315611	New Install	COMPLETED	4/23/2022	YES	N/A
315612	New Install	COMPLETED	4/23/2022	YES	N/A
315613	New Install	COMPLETED	4/23/2022	YES	N/A
313087	New Install	COMPLETED	4/23/2022	YES	N/A
313089	New Install	COMPLETED	4/23/2022	YES	N/A
313090	New Install	COMPLETED	4/23/2022	YES	N/A
313092	New Install	COMPLETED	4/23/2022	YES	N/A
313093	New Install	COMPLETED	4/23/2022	YES	N/A
313094	New Install	COMPLETED	4/23/2022	YES	N/A
315640	New Install	COMPLETED	4/23/2022	YES	N/A
315643	New Install	COMPLETED	4/23/2022	YES	N/A
750766	New Install	COMPLETED	4/30/2022	YES	N/A
926969	New Install	COMPLETED	4/30/2022	YES	N/A
316279	New Install	COMPLETED	5/3/2022	YES	N/A
316280	New Install	COMPLETED	5/3/2022	YES	N/A
316281	New Install	COMPLETED	5/3/2022	YES	N/A
310787	New Install	COMPLETED	5/3/2022	YES	N/A
316283	New Install	COMPLETED	5/3/2022	YES	N/A
316284	New Install	COMPLETED	5/3/2022	YES	N/A
316292	New Install	COMPLETED	5/3/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
310786	New Install	COMPLETED	5/3/2022	YES	N/A
316295	New Install	COMPLETED	5/3/2022	YES	N/A
316294	New Install	COMPLETED	5/3/2022	YES	N/A
316296	New Install	COMPLETED	5/3/2022	YES	N/A
316300	New Install	COMPLETED	5/3/2022	YES	N/A
317067	New Install	COMPLETED	5/3/2022	YES	N/A
317068	New Install	COMPLETED	5/3/2022	YES	N/A
317069	New Install	COMPLETED	5/3/2022	YES	N/A
317070	New Install	COMPLETED	5/3/2022	YES	N/A
317071	New Install	COMPLETED	5/3/2022	YES	N/A
317072	New Install	COMPLETED	5/3/2022	YES	N/A
317073	New Install	COMPLETED	5/3/2022	YES	N/A
317074	New Install	COMPLETED	5/3/2022	YES	N/A
317064	New Install	COMPLETED	5/3/2022	YES	N/A
317065	New Install	COMPLETED	5/3/2022	YES	N/A
317066	New Install	COMPLETED	5/3/2022	YES	N/A
313070	New Install	COMPLETED	5/3/2022	YES	N/A
313071	New Install	COMPLETED	5/3/2022	YES	N/A
313073	New Install	COMPLETED	5/3/2022	YES	N/A
313074	New Install	COMPLETED	5/3/2022	YES	N/A
313075	New Install	COMPLETED	5/3/2022	YES	N/A
313076	New Install	COMPLETED	5/3/2022	YES	N/A
313077	New Install	COMPLETED	5/3/2022	YES	N/A
313078	New Install	COMPLETED	5/3/2022	YES	N/A
313079	New Install	COMPLETED	5/3/2022	YES	N/A
313080	New Install	COMPLETED	5/3/2022	YES	N/A
313082	New Install	COMPLETED	5/3/2022	YES	N/A
313083	New Install	COMPLETED	5/3/2022	YES	N/A
313084	New Install	COMPLETED	5/3/2022	YES	N/A
317009	New Install	COMPLETED	5/3/2022	YES	N/A
317010	New Install	COMPLETED	5/3/2022	YES	N/A
317011	New Install	COMPLETED	5/3/2022	YES	N/A
315652	New Install	COMPLETED	5/5/2022	YES	N/A
315653	New Install	COMPLETED	5/5/2022	YES	N/A
315654	New Install	COMPLETED	5/5/2022	YES	N/A
315655	New Install	COMPLETED	5/5/2022	YES	N/A
315656	New Install	COMPLETED	5/5/2022	YES	N/A
315657	New Install	COMPLETED	5/5/2022	YES	N/A
315658	New Install	COMPLETED	5/5/2022	YES	N/A
315659	New Install	COMPLETED	5/6/2022	YES	N/A
315660	New Install	COMPLETED	5/6/2022	YES	N/A
315661	New Install	COMPLETED	5/6/2022	YES	N/A
315662	New Install	COMPLETED	5/6/2022	YES	N/A
315663	New Install	COMPLETED	5/6/2022	YES	N/A
315664	New Install	COMPLETED	5/6/2022	YES	N/A
315665	New Install	COMPLETED	5/6/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
315676	New Install	COMPLETED	5/6/2022	YES	N/A
315677	New Install	COMPLETED	5/6/2022	YES	N/A
315679	New Install	COMPLETED	5/6/2022	YES	N/A
315680	New Install	COMPLETED	5/6/2022	YES	N/A
315666	New Install	COMPLETED	5/6/2022	YES	N/A
315667	New Install	COMPLETED	5/6/2022	YES	N/A
315756	New Install	COMPLETED	5/6/2022	YES	N/A
315757	New Install	COMPLETED	5/6/2022	YES	N/A
315758	New Install	COMPLETED	5/6/2022	YES	N/A
317770	New Install	COMPLETED	5/6/2022	YES	N/A
317771	New Install	COMPLETED	5/6/2022	YES	N/A
313469	New Install	COMPLETED	5/6/2022	YES	N/A
317030	New Install	COMPLETED	5/6/2022	YES	N/A
317031	New Install	COMPLETED	5/6/2022	YES	N/A
317032	New Install	COMPLETED	5/6/2022	YES	N/A
317033	New Install	COMPLETED	5/6/2022	YES	N/A
317034	New Install	COMPLETED	5/6/2022	YES	N/A
317035	New Install	COMPLETED	5/6/2022	YES	N/A
317036	New Install	COMPLETED	5/6/2022	YES	N/A
317037	New Install	COMPLETED	5/6/2022	YES	N/A
317038	New Install	COMPLETED	5/6/2022	YES	N/A
317039	New Install	COMPLETED	5/6/2022	YES	N/A
317040	New Install	COMPLETED	5/6/2022	YES	N/A
317041	New Install	COMPLETED	5/6/2022	YES	N/A
317042	New Install	COMPLETED	5/6/2022	YES	N/A
317043	New Install	COMPLETED	5/6/2022	YES	N/A
317044	New Install	COMPLETED	5/6/2022	YES	N/A
317045	New Install	COMPLETED	5/6/2022	YES	N/A
317762	New Install	COMPLETED	5/6/2022	YES	N/A
317763	New Install	COMPLETED	5/6/2022	YES	N/A
317764	New Install	COMPLETED	5/6/2022	YES	N/A
317765	New Install	COMPLETED	5/6/2022	YES	N/A
317766	New Install	COMPLETED	5/6/2022	YES	N/A
317767	New Install	COMPLETED	5/6/2022	YES	N/A
317768	New Install	COMPLETED	5/6/2022	YES	N/A
317769	New Install	COMPLETED	5/6/2022	YES	N/A
315681	New Install	COMPLETED	5/6/2022	YES	N/A
315682	New Install	COMPLETED	5/6/2022	YES	N/A
315683	New Install	COMPLETED	5/6/2022	YES	N/A
315684	New Install	COMPLETED	5/6/2022	YES	N/A
315685	New Install	COMPLETED	5/6/2022	YES	N/A
315686	New Install	COMPLETED	5/6/2022	YES	N/A
315688	New Install	COMPLETED	5/6/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
315689	New Install	COMPLETED	5/6/2022	YES	N/A
317001	New Install	COMPLETED	5/6/2022	YES	N/A
317002	New Install	COMPLETED	5/6/2022	YES	N/A
317003	New Install	COMPLETED	5/6/2022	YES	N/A
317004	New Install	COMPLETED	5/6/2022	YES	N/A
317005	New Install	COMPLETED	5/6/2022	YES	N/A
317006	New Install	COMPLETED	5/6/2022	YES	N/A
317007	New Install	COMPLETED	5/6/2022	YES	N/A
317008	New Install	COMPLETED	5/6/2022	YES	N/A
317046	New Install	COMPLETED	5/6/2022	YES	N/A
318005	New Install	COMPLETED	5/7/2022	YES	N/A
318003	New Install	COMPLETED	5/7/2022	YES	N/A
318006	New Install	COMPLETED	5/7/2022	YES	N/A
318002	New Install	COMPLETED	5/7/2022	YES	N/A
318004	New Install	COMPLETED	5/7/2022	YES	N/A
318001	New Install	COMPLETED	5/7/2022	YES	N/A
310793	New Install	COMPLETED	5/7/2022	YES	N/A
310794	New Install	COMPLETED	5/7/2022	YES	N/A
310791	New Install	COMPLETED	5/7/2022	YES	N/A
310790	New Install	COMPLETED	5/7/2022	YES	N/A
310789	New Install	COMPLETED	5/7/2022	YES	N/A
310792	New Install	COMPLETED	5/7/2022	YES	N/A
310788	New Install	COMPLETED	5/7/2022	YES	N/A
317058	New Install	COMPLETED	5/7/2022	YES	N/A
317059	New Install	COMPLETED	5/7/2022	YES	N/A
317060	New Install	COMPLETED	5/7/2022	YES	N/A
317075	New Install	COMPLETED	5/7/2022	YES	N/A
317015	New Install	COMPLETED	5/7/2022	YES	N/A
317016	New Install	COMPLETED	5/7/2022	YES	N/A
317017	New Install	COMPLETED	5/7/2022	YES	N/A
317018	New Install	COMPLETED	5/7/2022	YES	N/A
317019	New Install	COMPLETED	5/7/2022	YES	N/A
317020	New Install	COMPLETED	5/7/2022	YES	N/A
317021	New Install	COMPLETED	5/7/2022	YES	N/A
317022	New Install	COMPLETED	5/7/2022	YES	N/A
317023	New Install	COMPLETED	5/7/2022	YES	N/A
317024	New Install	COMPLETED	5/7/2022	YES	N/A
317025	New Install	COMPLETED	5/7/2022	YES	N/A
317026	New Install	COMPLETED	5/7/2022	YES	N/A
317027	New Install	COMPLETED	5/7/2022	YES	N/A
317028	New Install	COMPLETED	5/7/2022	YES	N/A
317029	New Install	COMPLETED	5/7/2022	YES	N/A
315632	New Install	COMPLETED	5/7/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
315633	New Install	COMPLETED	5/7/2022	YES	N/A
315634	New Install	COMPLETED	5/7/2022	YES	N/A
315636	New Install	COMPLETED	5/7/2022	YES	N/A
315697	New Install	COMPLETED	5/7/2022	YES	N/A
315698	New Install	COMPLETED	5/7/2022	YES	N/A
315699	New Install	COMPLETED	5/7/2022	YES	N/A
317014	New Install	COMPLETED	5/7/2022	YES	N/A
315691	New Install	COMPLETED	5/7/2022	YES	N/A
315693	New Install	COMPLETED	5/7/2022	YES	N/A
315694	New Install	COMPLETED	5/7/2022	YES	N/A
317012	New Install	COMPLETED	5/7/2022	YES	N/A
317013	New Install	COMPLETED	5/7/2022	YES	N/A
313467	New Install	COMPLETED	5/7/2022	YES	N/A
315763	New Install	COMPLETED	5/7/2022	YES	N/A
313468	New Install	COMPLETED	5/7/2022	YES	N/A
315764	New Install	COMPLETED	5/7/2022	YES	N/A
313466	New Install	COMPLETED	5/7/2022	YES	N/A
315765	New Install	COMPLETED	5/7/2022	YES	N/A
315760	New Install	COMPLETED	5/7/2022	YES	N/A
315761	New Install	COMPLETED	5/7/2022	YES	N/A
315614	New Install	COMPLETED	5/8/2022	YES	N/A
315615	New Install	COMPLETED	5/8/2022	YES	N/A
315629	New Install	COMPLETED	5/8/2022	YES	N/A
315630	New Install	COMPLETED	5/8/2022	YES	N/A
315631	New Install	COMPLETED	5/8/2022	YES	N/A
315618	New Install	COMPLETED	5/8/2022	YES	N/A
315619	New Install	COMPLETED	5/8/2022	YES	N/A
315620	New Install	COMPLETED	5/8/2022	YES	N/A
315622	New Install	COMPLETED	5/8/2022	YES	N/A
315623	New Install	COMPLETED	5/8/2022	YES	N/A
315624	New Install	COMPLETED	5/8/2022	YES	N/A
315625	New Install	COMPLETED	5/8/2022	YES	N/A
315752	New Install	COMPLETED	5/8/2022	YES	N/A
317089	New Install	COMPLETED	5/8/2022	YES	N/A
317049	New Install	COMPLETED	5/8/2022	YES	N/A
317050	New Install	COMPLETED	5/8/2022	YES	N/A
317051	New Install	COMPLETED	5/8/2022	YES	N/A
317052	New Install	COMPLETED	5/8/2022	YES	N/A
317081	New Install	COMPLETED	5/8/2022	YES	N/A
317054	New Install	COMPLETED	5/8/2022	YES	N/A
317055	New Install	COMPLETED	5/8/2022	YES	N/A
317056	New Install	COMPLETED	5/8/2022	YES	N/A
317057	New Install	COMPLETED	5/8/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
317076	New Install	COMPLETED	5/8/2022	YES	N/A
317077	New Install	COMPLETED	5/8/2022	YES	N/A
317078	New Install	COMPLETED	5/8/2022	YES	N/A
317079	New Install	COMPLETED	5/8/2022	YES	N/A
317080	New Install	COMPLETED	5/8/2022	YES	N/A
317082	New Install	COMPLETED	5/8/2022	YES	N/A
317084	New Install	COMPLETED	5/8/2022	YES	N/A
317086	New Install	COMPLETED	5/8/2022	YES	N/A
317087	New Install	COMPLETED	5/8/2022	YES	N/A
317088	New Install	COMPLETED	5/8/2022	YES	N/A
317090	New Install	COMPLETED	5/8/2022	YES	N/A
317101	New Install	COMPLETED	5/11/2022	YES	N/A
317102	New Install	COMPLETED	5/11/2022	YES	N/A
317103	New Install	COMPLETED	5/11/2022	YES	N/A
317104	New Install	COMPLETED	5/11/2022	YES	N/A
317105	New Install	COMPLETED	5/11/2022	YES	N/A
317106	New Install	COMPLETED	5/11/2022	YES	N/A
317107	New Install	COMPLETED	5/11/2022	YES	N/A
317108	New Install	COMPLETED	5/11/2022	YES	N/A
317109	New Install	COMPLETED	5/11/2022	YES	N/A
317110	New Install	COMPLETED	5/11/2022	YES	N/A
317111	New Install	COMPLETED	5/11/2022	YES	N/A
317112	New Install	COMPLETED	5/11/2022	YES	N/A
317113	New Install	COMPLETED	5/11/2022	YES	N/A
317114	New Install	COMPLETED	5/11/2022	YES	N/A
317115	New Install	COMPLETED	5/11/2022	YES	N/A
317116	New Install	COMPLETED	5/11/2022	YES	N/A
317117	New Install	COMPLETED	5/11/2022	YES	N/A
317118	New Install	COMPLETED	5/11/2022	YES	N/A
317119	New Install	COMPLETED	5/11/2022	YES	N/A
317120	New Install	COMPLETED	5/11/2022	YES	N/A
317121	New Install	COMPLETED	5/11/2022	YES	N/A
317122	New Install	COMPLETED	5/11/2022	YES	N/A
317123	New Install	COMPLETED	5/11/2022	YES	N/A
317124	New Install	COMPLETED	5/11/2022	YES	N/A
317125	New Install	COMPLETED	5/11/2022	YES	N/A
317126	New Install	COMPLETED	5/11/2022	YES	N/A
317127	New Install	COMPLETED	5/11/2022	YES	N/A
317128	New Install	COMPLETED	5/11/2022	YES	N/A
317129	New Install	COMPLETED	5/11/2022	YES	N/A
317130	New Install	COMPLETED	5/11/2022	YES	N/A
317131	New Install	COMPLETED	5/11/2022	YES	N/A
317132	New Install	COMPLETED	5/11/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
317133	New Install	COMPLETED	5/11/2022	YES	N/A
317134	New Install	COMPLETED	5/11/2022	YES	N/A
317135	New Install	COMPLETED	5/11/2022	YES	N/A
317136	New Install	COMPLETED	5/11/2022	YES	N/A
317137	New Install	COMPLETED	5/11/2022	YES	N/A
317138	New Install	COMPLETED	5/11/2022	YES	N/A
317139	New Install	COMPLETED	5/11/2022	YES	N/A
317140	New Install	COMPLETED	5/11/2022	YES	N/A
317141	New Install	COMPLETED	5/11/2022	YES	N/A
317142	New Install	COMPLETED	5/11/2022	YES	N/A
317143	New Install	COMPLETED	5/11/2022	YES	N/A
317144	New Install	COMPLETED	5/11/2022	YES	N/A
317145	New Install	COMPLETED	5/11/2022	YES	N/A
317167	New Install	COMPLETED	5/11/2022	YES	N/A
317168	New Install	COMPLETED	5/11/2022	YES	N/A
317169	New Install	COMPLETED	5/11/2022	YES	N/A
317170	New Install	COMPLETED	5/11/2022	YES	N/A
317171	New Install	COMPLETED	5/11/2022	YES	N/A
317172	New Install	COMPLETED	5/11/2022	YES	N/A
317173	New Install	COMPLETED	5/11/2022	YES	N/A
317174	New Install	COMPLETED	5/11/2022	YES	N/A
317175	New Install	COMPLETED	5/11/2022	YES	N/A
317176	New Install	COMPLETED	5/11/2022	YES	N/A
317177	New Install	COMPLETED	5/11/2022	YES	N/A
317178	New Install	COMPLETED	5/11/2022	YES	N/A
317180	New Install	COMPLETED	5/11/2022	YES	N/A
317181	New Install	COMPLETED	5/11/2022	YES	N/A
317182	New Install	COMPLETED	5/11/2022	YES	N/A
317183	New Install	COMPLETED	5/11/2022	YES	N/A
318106	New Install	COMPLETED	5/12/2022	YES	N/A
317164	New Install	COMPLETED	5/12/2022	YES	N/A
317201	New Install	COMPLETED	5/14/2022	YES	N/A
315201	New Install	COMPLETED	5/14/2022	YES	N/A
317206	New Install	COMPLETED	5/14/2022	YES	N/A
317211	New Install	COMPLETED	5/14/2022	YES	N/A
315206	New Install	COMPLETED	5/14/2022	YES	N/A
315211	New Install	COMPLETED	5/14/2022	YES	N/A
317216	New Install	COMPLETED	5/14/2022	YES	N/A
315216	New Install	COMPLETED	5/14/2022	YES	N/A
317221	New Install	COMPLETED	5/14/2022	YES	N/A
317226	New Install	COMPLETED	5/14/2022	YES	N/A
315221	New Install	COMPLETED	5/14/2022	YES	N/A
317231	New Install	COMPLETED	5/14/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
315226	New Install	COMPLETED	5/14/2022	YES	N/A
317236	New Install	COMPLETED	5/14/2022	YES	N/A
315231	New Install	COMPLETED	5/14/2022	YES	N/A
317241	New Install	COMPLETED	5/14/2022	YES	N/A
315236	New Install	COMPLETED	5/14/2022	YES	N/A
315241	New Install	COMPLETED	5/14/2022	YES	N/A
317246	New Install	COMPLETED	5/14/2022	YES	N/A
315246	New Install	COMPLETED	5/14/2022	YES	N/A
317251	New Install	COMPLETED	5/14/2022	YES	N/A
315251	New Install	COMPLETED	5/14/2022	YES	N/A
317256	New Install	COMPLETED	5/14/2022	YES	N/A
315256	New Install	COMPLETED	5/14/2022	YES	N/A
317261	New Install	COMPLETED	5/14/2022	YES	N/A
317266	New Install	COMPLETED	5/14/2022	YES	N/A
315261	New Install	COMPLETED	5/14/2022	YES	N/A
317271	New Install	COMPLETED	5/14/2022	YES	N/A
317276	New Install	COMPLETED	5/14/2022	YES	N/A
315266	New Install	COMPLETED	5/14/2022	YES	N/A
317281	New Install	COMPLETED	5/14/2022	YES	N/A
315271	New Install	COMPLETED	5/14/2022	YES	N/A
315276	New Install	COMPLETED	5/14/2022	YES	N/A
317286	New Install	COMPLETED	5/14/2022	YES	N/A
317291	New Install	COMPLETED	5/14/2022	YES	N/A
317296	New Install	COMPLETED	5/14/2022	YES	N/A
317701	New Install	COMPLETED	5/14/2022	YES	N/A
315281	New Install	COMPLETED	5/14/2022	YES	N/A
318148	New Install	COMPLETED	5/14/2022	YES	N/A
318149	New Install	COMPLETED	5/14/2022	YES	N/A
318150	New Install	COMPLETED	5/14/2022	YES	N/A
317184	New Install	COMPLETED	5/14/2022	YES	N/A
318121	New Install	COMPLETED	5/14/2022	YES	N/A
318122	New Install	COMPLETED	5/14/2022	YES	N/A
317706	New Install	COMPLETED	5/15/2022	YES	N/A
315286	New Install	COMPLETED	5/15/2022	YES	N/A
317711	New Install	COMPLETED	5/15/2022	YES	N/A
315291	New Install	COMPLETED	5/15/2022	YES	N/A
317716	New Install	COMPLETED	5/15/2022	YES	N/A
315296	New Install	COMPLETED	5/15/2022	YES	N/A
317721	New Install	COMPLETED	5/15/2022	YES	N/A
315301	New Install	COMPLETED	5/15/2022	YES	N/A
317726	New Install	COMPLETED	5/15/2022	YES	N/A
315306	New Install	COMPLETED	5/15/2022	YES	N/A
317731	New Install	COMPLETED	5/15/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
315311	New Install	COMPLETED	5/15/2022	YES	N/A
317736	New Install	COMPLETED	5/15/2022	YES	N/A
315316	New Install	COMPLETED	5/15/2022	YES	N/A
317741	New Install	COMPLETED	5/15/2022	YES	N/A
315321	New Install	COMPLETED	5/15/2022	YES	N/A
317746	New Install	COMPLETED	5/15/2022	YES	N/A
317751	New Install	COMPLETED	5/15/2022	YES	N/A
315326	New Install	COMPLETED	5/15/2022	YES	N/A
317756	New Install	COMPLETED	5/15/2022	YES	N/A
315331	New Install	COMPLETED	5/15/2022	YES	N/A
317301	New Install	COMPLETED	5/15/2022	YES	N/A
315336	New Install	COMPLETED	5/15/2022	YES	N/A
315341	New Install	COMPLETED	5/15/2022	YES	N/A
315346	New Install	COMPLETED	5/15/2022	YES	N/A
315351	New Install	COMPLETED	5/15/2022	YES	N/A
315356	New Install	COMPLETED	5/15/2022	YES	N/A
315361	New Install	COMPLETED	5/15/2022	YES	N/A
317306	New Install	COMPLETED	5/15/2022	YES	N/A
315366	New Install	COMPLETED	5/15/2022	YES	N/A
317311	New Install	COMPLETED	5/15/2022	YES	N/A
315371	New Install	COMPLETED	5/15/2022	YES	N/A
317316	New Install	COMPLETED	5/15/2022	YES	N/A
317321	New Install	COMPLETED	5/15/2022	YES	N/A
315376	New Install	COMPLETED	5/15/2022	YES	N/A
317326	New Install	COMPLETED	5/15/2022	YES	N/A
315381	New Install	COMPLETED	5/15/2022	YES	N/A
315386	New Install	COMPLETED	5/15/2022	YES	N/A
315391	New Install	COMPLETED	5/15/2022	YES	N/A
315396	New Install	COMPLETED	5/15/2022	YES	N/A
317331	New Install	COMPLETED	5/15/2022	YES	N/A
317336	New Install	COMPLETED	5/15/2022	YES	N/A
316401	New Install	COMPLETED	5/15/2022	YES	N/A
317341	New Install	COMPLETED	5/15/2022	YES	N/A
317346	New Install	COMPLETED	5/15/2022	YES	N/A
316406	New Install	COMPLETED	5/15/2022	YES	N/A
317351	New Install	COMPLETED	5/15/2022	YES	N/A
316411	New Install	COMPLETED	5/15/2022	YES	N/A
316411.2	New Install	COMPLETED	5/15/2022	YES	N/A
317356	New Install	COMPLETED	5/15/2022	YES	N/A
317361	New Install	COMPLETED	5/15/2022	YES	N/A
316416	New Install	COMPLETED	5/15/2022	YES	N/A
317366	New Install	COMPLETED	5/15/2022	YES	N/A
316421	New Install	COMPLETED	5/15/2022	YES	N/A

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
316426	New Install	COMPLETED	5/15/2022	YES	N/A
317371	New Install	COMPLETED	5/15/2022	YES	N/A
316431	New Install	COMPLETED	5/15/2022	YES	N/A
317376	New Install	COMPLETED	5/15/2022	YES	N/A
316436	New Install	COMPLETED	5/15/2022	YES	N/A
317381	New Install	COMPLETED	5/16/2022	YES	N/A
317386	New Install	COMPLETED	5/16/2022	YES	N/A
316441	New Install	COMPLETED	5/16/2022	YES	N/A
317391	New Install	COMPLETED	5/16/2022	YES	N/A
316446	New Install	COMPLETED	5/16/2022	YES	N/A
317396	New Install	COMPLETED	5/16/2022	YES	N/A
317601	New Install	COMPLETED	5/16/2022	YES	N/A
316451	New Install	COMPLETED	5/16/2022	YES	N/A
317606	New Install	COMPLETED	5/16/2022	YES	N/A
317611	New Install	COMPLETED	5/16/2022	YES	N/A
316456	New Install	COMPLETED	5/16/2022	YES	N/A
317616	New Install	COMPLETED	5/16/2022	YES	N/A
317616.1	New Install	COMPLETED	5/16/2022	YES	N/A
316461	New Install	COMPLETED	5/16/2022	YES	N/A
317621	New Install	COMPLETED	5/16/2022	YES	N/A
317626	New Install	COMPLETED	5/16/2022	YES	N/A
316466	New Install	COMPLETED	5/16/2022	YES	N/A
317631	New Install	COMPLETED	5/16/2022	YES	N/A
316471	New Install	COMPLETED	5/16/2022	YES	N/A
316476	New Install	COMPLETED	5/16/2022	YES	N/A
317636	New Install	COMPLETED	5/16/2022	YES	N/A
316481	New Install	COMPLETED	5/16/2022	YES	N/A
317641	New Install	COMPLETED	5/16/2022	YES	N/A
317646	New Install	COMPLETED	5/16/2022	YES	N/A
317651	New Install	COMPLETED	5/16/2022	YES	N/A
317656	New Install	COMPLETED	5/16/2022	YES	N/A
316486	New Install	COMPLETED	5/16/2022	YES	N/A
316491	New Install	COMPLETED	5/16/2022	YES	N/A
316496	New Install	COMPLETED	5/16/2022	YES	N/A
317661	New Install	COMPLETED	5/16/2022	YES	N/A
317666	New Install	COMPLETED	5/16/2022	YES	N/A
317671	New Install	COMPLETED	5/16/2022	YES	N/A
317676	New Install	COMPLETED	5/16/2022	YES	N/A
318159	New Install	COMPLETED	5/16/2022	YES	N/A
318160	New Install	COMPLETED	5/16/2022	YES	N/A
318161	New Install	COMPLETED	5/16/2022	YES	N/A
318156	New Install	COMPLETED	5/16/2022	YES	N/A
318157	New Install	COMPLETED	5/16/2022	YES	N/A

Motiva Chemicals LLC
Paragraph 61 Pro-Active Valve Tightening Work Practices Relating to each
New Valve that is Installed and Each Exisiting Valve that is Repacked

Valve Number	Repackeded or New Install	Manufacturer's recommended gland nut or packing torque	Date Added	3-17 day retorque Completed	Explanation for Missed Re-Torque
318158	New Install	COMPLETED	5/16/2022	YES	N/A
318179	New Install	COMPLETED	5/18/2022	YES	N/A
319699	New Install	COMPLETED	5/18/2022	YES	N/A
318177	New Install	COMPLETED	5/18/2022	YES	N/A
318172	New Install	COMPLETED	5/18/2022	YES	N/A
315601	New Install	COMPLETED	5/18/2022	YES	N/A
318180	New Install	COMPLETED	5/18/2022	YES	N/A
520506	Repacked	COMPLETED	5/26/2022	YES	N/A
203500	Repacked	COMPLETED	6/28/2022	YES	N/A

Appendix C-5.2: Paragraph 64 Replacing or Repacking Valves that have Screening Valves at or above 250 PPM with Low-E Valves or Low-E Packing

64. Replacing or Repacking Valves that have Screening Values at or above 250 ppm with Low-E Valves or Low-E Packing

Valve Number	Screening Value**	Follow-up value	Repacked, New Install, or Will be on turnaround list	Covered Process Unit	Date Replaced/ Repacked (N/A if not completed)
177	1,315	235	Will be on turnaround list	AU-CYCLO	N/A
2121	360	5	Will be on turnaround list	AU-CYCLO	N/A
10672	9,791	165	Will be on turnaround list	OFFSITES H	N/A
11146	513	102	Will be on turnaround list	OSBL MOTIVA	N/A
200459	2,787	241	Will be on turnaround list	LOU-FG	N/A
201087	9,432	186	Will be on turnaround list	LOU-DIS	N/A
201390	493	12	Will be on turnaround list	LOU	N/A
201985	279	206	Will be on turnaround list	LOU-FG	N/A
201990	3,076	16	New Install	LOU-FG	3/22/2022
201992	511	193	New Install	LOU-FG	3/22/2022
202094	542	19	Will be on turnaround list	PDU	N/A
202371	13,912	227	Repacked	LOU	3/24/2022
203298	478	185	Will be on turnaround list	LOU-GHU	N/A
203350	1,636	56	New Install	PDU	3/22/2022
203387	2,962	241	Will be on turnaround list	LOU	N/A
203393	426	5	Will be on turnaround list	LOU	N/A
203397	493	10	New Install	LOU	3/22/2022
203398	2,274	205	Will be on turnaround list	LOU	N/A
203399	662	11	Repacked	LOU	3/21/2022
203500	50,000	247	Repacked	OFFSITES H	6/28/2022
203605	4,556	10	Repacked	LOU	3/26/2022
203642	933	27	Will be on turnaround list	LOU	N/A
203718	1,600	136	New Install	LOU	4/7/2022
203942	289	10	Will be on turnaround list	LOU	N/A
203990	1,206	243	Repacked	LOU	3/21/2022
204066	326	68	Repacked	LOU	3/25/2022
204355	1,800	16,500	Repacked	LOU	3/19/2022
204463	851	10	Will be on turnaround list	LOU	N/A
204466	325	26	Will be on turnaround list	LOU-GHU	N/A
204760	1,759	94	Repacked	LOU	3/21/2022

Valve Number	Screening Value**	Follow-up value	Repacked, New Install, or Will be on turnaround list	Covered Process Unit	Date Replaced/ Repacked (N/A if not completed)
204803	984	0	Repacked	LOU	4/4/2022
204891	342	5,200	Will be on turnaround list	LOU	N/A
204900	1,887	10,000	Will be on turnaround list	LOU	N/A
300081	3,056	10	Repacked	LOU	3/26/2022
300278	271	168	Will be on turnaround list	LOU-FG	N/A
301370	400	35	Will be on turnaround list	AU-CYCLO	N/A
306804	2,356	30	Will be on turnaround list	LOU	N/A
306805	454	167	Will be on turnaround list	LOU	N/A
306806	259	230	Will be on turnaround list	LOU	N/A
306862	1,480	223	Will be on turnaround list	LOU	N/A
307035	731	18	Will be on turnaround list	LOU	N/A
307711	2,977	236	Repacked	LOU	3/21/2022
308129	7,194	121	Repacked	LOU	3/25/2022
308560	422	102	Will be on turnaround list	PDU	N/A
309017	1,577	12	Repacked	LOU	3/23/2022
309087	593	2	Will be on turnaround list	LOU-GHU	N/A
309402	1,786	3	Will be on turnaround list	PDU-PIPE	N/A
310017	333	3	Will be on turnaround list	AU-CYCLO	N/A
310262	621	34	Will be on turnaround list	LOU	N/A
314404	21,918	6	Repacked	LOU	3/29/2022
315452	908	144	Will be on turnaround list	LOU-GHU	N/A
315779	272	243	New Install	LOU	4/3/2022
315796	956	138	Will be on turnaround list	LOU-FG	N/A
400108	5,085	785	Repacked	LOU	3/24/2022
400358	712	240	Will be on turnaround list	LOU	N/A
400960	348	2	Will be on turnaround list	LOU-FG	N/A
401389	807	10,000	Repacked	LOU	3/20/2022
402112	13,283	96	Repacked	LOU	5/25/2022
500188	286	21	New Install	LOU	4/2/2022
501768	260	202	Will be on turnaround list	LOU	N/A
501880	451	2	New Install	LOU	3/23/2022
502261	27,219	4	New Install	LOU	3/23/2022
503493	17,246	2	Will be on turnaround list	LOU	N/A
503811	461	3	Will be on turnaround list	LOU	N/A
506199	408	244	New Install	LOU	4/16/2022
510229	502	6,500	New Install	OFFSITES UU	4/5/2022

Valve Number	Screening Value**	Follow-up value	Repacked, New Install, or Will be on turnaround list	Covered Process Unit	Date Replaced/ Repacked (N/A if not completed)
531311	291	225	Will be on turnaround list	AU-CYCLO	N/A
532524	10,000	55	New Install	LOU	4/12/2022
602407	294	13	Will be on turnaround list	AU-CYCLO	N/A
602412	1,487	10	Will be on turnaround list	AU-CYCLO	N/A
602413	3,262	187	Will be on turnaround list	AU-CYCLO	N/A
603000	338	6	Repacked	LOU	4/4/2022
604051	358	25	Will be on turnaround list	LOU	N/A
700359	336	27	Will be on turnaround list	AU-CYCLO	N/A
701958	310	3	Will be on turnaround list	AU-CYCLO	N/A
703007	491	1	Will be on turnaround list	OFFSITES UU	N/A
705565	518	138	Will be on turnaround list	LOU	N/A
750092	3,807	27	Will be on turnaround list	LOU-FG	N/A
833011	464	42	Will be on turnaround list	LOU-FG	N/A
833056	1,025	88	Repacked	LOU	4/6/2022
833604	4,870	137	Will be on turnaround list	LOU	N/A
833978	278	158	Will be on turnaround list	LOU-FG	N/A
833984	695	240	Will be on turnaround list	LOU-FG	N/A
834801	2,341	15	Repacked	LOU	3/21/2022
834802	574	27	Will be on turnaround list	LOU	N/A
837251	2,372	28	Will be on turnaround list	LOU-FG	N/A
837875	1,341	2	Will be on turnaround list	LOU-FG	N/A
837878	2,911	2	Will be on turnaround list	LOU-FG	N/A
910131	708	224	Will be on turnaround list	AU-CYCLO	N/A
910142	618	189	Will be on turnaround list	AU-CYCLO	N/A
910516	489	49	Will be on turnaround list	AU-CYCLO	N/A
910780	338	6	Will be on turnaround list	CYCLO	N/A
911305	23,016	9	Will be on turnaround list	AU-CYCLO	N/A
911312	615	42	Will be on turnaround list	AU-CYCLO	N/A
911425	827	5	Will be on turnaround list	AU-CYCLO	N/A
915581	564	224	New Install	LOU	4/2/2022
917118	787	13	Will be on turnaround list	LOU	N/A
917188	470	162	Repacked	LOU	3/31/2022
918177	7,210	4,500	Will be on turnaround list	LOU	N/A
918372	882	111	Will be on turnaround list	LOU	N/A
920578	253	10	New Install	LOU	3/25/2022
928894	400	185	Will be on turnaround list	LOU	N/A

Valve Number	Screening Value**	Follow-up value	Repacked, New Install, or Will be on turnaround list	Covered Process Unit	Date Replaced/ Repacked (N/A if not completed)
929020	4,170	135	Will be on turnaround list	LOU	N/A
929510	381	58	Will be on turnaround list	LOU	N/A
B-10631	11,672	5	Will be on turnaround list	LOU-FG	N/A
B-10635	350	148	Will be on turnaround list	LOU-FG	N/A
B-10663	700	6	Will be on turnaround list	LOU-FG	N/A
C-0073	1,070	14	Will be on turnaround list	LOU	N/A
D-0007	8,232	180	Repacked	LOU	4/5/2022
F-0115 ET	367	138	Will be on turnaround list	LOU	N/A
F-0321	298	16	Will be on turnaround list	LOU	N/A
F-13306	272	20	Will be on turnaround list	LOU-FG	N/A
F-1573	819	231	Will be on turnaround list	LOU-DIS	N/A
G-0241	822	25	Will be on turnaround list	LOU	N/A
G-0255	320	14	Will be on turnaround list	LOU	N/A
G-0444	2,646	3	Will be on turnaround list	LOU	N/A
G-0654	970	145	New Install	LOU	4/16/2022
G-0815	2,784	45	Will be on turnaround list	LOU	N/A
G-12406	29,632	3	Will be on turnaround list	LOU-FG	N/A
G-12551	2,568	246	Repacked	LOU-FG	3/24/2022
G-12583	893	164	Will be on turnaround list	LOU-FG	N/A
G-12645	519	173	Will be on turnaround list	LOU-FG	N/A
H-0034	4,847	5	Will be on turnaround list	LOU	N/A
H-0038	316	4	Will be on turnaround list	LOU	N/A
H-0054	458	194	Will be on turnaround list	LOU	N/A
H-0077	459	73	Will be on turnaround list	LOU	N/A
H-0331	2,920	2	Will be on turnaround list	LOU	N/A
J-1540	1,057	2	Will be on turnaround list	LOU-GHU	N/A
J-1584	1,032	97	Will be on turnaround list	LOU-GHU	N/A
J-1679	2,457	248	Will be on turnaround list	LOU-GHU	N/A
J-1694	498	150	Will be on turnaround list	LOU-GHU	N/A
J-2152	1,231	87	Will be on turnaround list	LOU-GHU	N/A
K-0588	1,521	10	Will be on turnaround list	LOU	N/A
K-0915	327	180	New Install	LOU	3/24/2022
K-1005	576	145	Will be on turnaround list	LOU	N/A
K-1016	744	24	Will be on turnaround list	LOU	N/A
K-1372I	459	238	Will be on turnaround list	LOU	N/A
K-1500	287	104	Will be on turnaround list	LOU	N/A

Valve Number	Screening Value**	Follow-up value	Repacked, New Install, or Will be on turnaround list	Covered Process Unit	Date Replaced/ Repacked (N/A if not completed)
K-2617	1,122	187	Will be on turnaround list	LOU-DEB	N/A
L-0186	519	238	New Install	LOU	3/26/2022
L-1016	639	84	Will be on turnaround list	LOU	N/A
M-0233	670	3,000	Will be on turnaround list	LOU	N/A
M-0460	402	140	Will be on turnaround list	LOU	N/A
M-0498	1,320	243	Will be on turnaround list	LOU	N/A
M-0725	3,376	487	Will be on turnaround list	LOU	N/A
P-0079	9,150	4	Will be on turnaround list	PDU	N/A
P-0201	552	80	Will be on turnaround list	PDU	N/A
P-0263	697	241	Will be on turnaround list	PDU	N/A
P-1228	1,657	223	Will be on turnaround list	PDU	N/A
316276	604	78	Will be on turnaround list	PDU-PIPE	N/A
900962	470	188	Will be on turnaround list	LOU	N/A

Appendix C-5.3: Paragraph 66 Provisions Related to Low-E Valves on Low-E Packing

66. Provisions Related to Valves and Packing

Valve Number	Date of Installation/ Repack	Valve or Packing	Screening Value	Subsequent Screening Value	First Time Repair Completed (<250 ppm reading) or Placed on DOR	Any subsequent Repair Attempt beyond first attempt will require following Paragraph 64 (P64)
929313	4/20/2015	VALVE	376	8	1/10/2022	
203144	11/10/2021	PACKING	566	7	1/11/2022	
305621	7/25/2016	PACKING	269	121	1/13/2022	
926667	11/3/2021	PACKING	1,476	227	1/13/2022	
203928	11/10/2020	PACKING	560	166	1/19/2022	
202950	5/18/2021	PACKING	462	190	1/24/2022	
701298	8/11/2015	PACKING	348	16	1/24/2022	
530290	10/22/2019	PACKING	415	2	1/25/2022	
918353	9/11/2019	PACKING	517	36	1/25/2022	
316560	9/18/2020	PACKING	701	234	1/27/2022	
316917	5/16/2018	PACKING	389	26	2/3/2022	
G-0472	3/23/2022	PACKING	858	244	5/10/2022	
K-0051	4/16/2022	VALVE	24,021	49	5/10/2022	
929342	4/6/2022	VALVE	363	15	5/11/2022	
203365	3/30/2022	PACKING	1,079	8	5/12/2022	
203386	3/25/2022	PACKING	386	71	5/12/2022	
300520	4/2/2022	PACKING	27,769	44	5/12/2022	
917206	4/11/2022	VALVE	363	235	5/12/2022	
204714	3/28/2022	PACKING	6,885	10	5/13/2022	
308560	3/7/2018	PACKING	422	102	5/13/2022	
834816	3/30/2022	PACKING	2,022	242	5/13/2022	
929786	3/30/2022	PACKING	337	12	5/13/2022	
K-1177I	4/16/2022	VALVE	1,046	10	5/13/2022	
401535	3/21/2022	PACKING	1,580	22	5/16/2022	
M-0502	3/29/2022	PACKING	2,180	48	5/16/2022	
313087	4/23/2022	VALVE	415	168	5/17/2022	
750090	3/22/2022	VALVE	13,154	54	5/17/2022	
G-0811	3/21/2022	PACKING	1,367	192	5/18/2022	
532552	3/22/2022	PACKING	9,295	32	5/19/2022	
917307	3/28/2022	PACKING	1,224	84	5/24/2022	
204462	4/20/2015	VALVE	336	168	5/31/2022	
307741	8/18/2015	PACKING	738	58	6/1/2022	
704775	9/21/2015	PACKING	923	68	6/1/2022	
301939	9/6/2015	PACKING	1,689	235	6/22/2022	
307863	6/9/2015	PACKING	263	3	6/27/2022	

Appendix C-5.4: Paragraph 70 Replacing or Improving Connectors

70. Replacing or Improving Connectors

Connector Number	Screening Value at or above 250 ppm 1st leak within 3 consecutive monitoring Period	Screening Value at or above 250 ppm 2nd leak within 3 consecutive monitoring Period	Repaired, Replacement, Improvement, or DOR	Covered Process Unit	Date Repaired/ Replaced
300082.1	2,800	1,792	REPLACED	LOU	1/12/2022
314567.2	414	1,253	REPLACED	LOU	1/24/2022
319422.2	821	1,200	REPLACED	LOU	1/24/2022
314571.2	2,676	2,792	REPLACED	LOU	1/24/2022
P-0562C-S1	3,005	42,888	REPLACED	PDU	1/24/2022
910829.1	400	1,269	REPLACED	AU-CYCLO	2/2/2022
911239.1	1,927	2,645	REPLACED	AU-CYCLO	2/8/2022
301253	1,956	458	REPLACED	AU-CYCLO	2/9/2022
911216.1	504	70,492	REPLACED	AU-CYCLO	2/9/2022
7049	10,000	10,000	REPLACED	WASTEWATER	2/16/2022
G-0458.1	1,827	3,003	REPLACED	LOU	5/23/2022
L-0005.1	5,000	30,000	REPLACED	LOU	6/6/2022
P-1830-F2	314	2,000	REPLACED	OSBL	6/8/2022
204569.1	1,296	415	REPLACED	LOU	6/22/2022

** Connectors in some units are monitored on an annual vs. semi-annual basis.

APPENDIX D

Affirmative Relief Section VI: BWON Reporting

Motiva Chemicals' response for this section has been provided in the main body of the Report. No additional information is presented in Appendix D.

APPENDIX E

CD Section IX Environmental Mitigation Projects Reporting

Motiva Chemicals' response for this section has been provided in the main body of the Report. No additional information is presented in Appendix E.

APPENDIX F

CD Appendix 5.1 Air Monitoring Semi-Annual Report

Motiva Chemicals' response for this section has been provided in the main body of the Report. No additional information is presented in Appendix F.